



8 December 2016

Welcome

Welcome to the 10th edition of Viral News. This issue of Viral News has a number of updates across the breadth of the FMD programme, ranging from disease management and communications to the trade project and Exercise Akuaku.

The FMD programme management has been streamlined and refocused to provide increased accountability and support to the portfolio of work. The seventeen projects under the FMD programme have been grouped under three portfolios: FMD disease management, FMD Coordination and NZ Inc. Each of these portfolios has a dedicated project manager, with the Programme Manager having overall oversight. The disease management and coordination portfolios are nearing completion and will be transitioned into BAU in the near future. The NZ Inc. portfolio includes the trade, recovery and whole of government projects and are likely ongoing pieces of work for at least 2-3 years.



Progress Highlights:

Since June 2016

- Exercise Akuaku was held on 19th October 2016. This was a functional test of the destruction, disposal and disinfection (3D) operational plans, on a dairy farm in the Waikato region. The Exercise predominantly focused on planning functions but also included establishing a Gate Control Unit and the disinfection of a truck leaving the premises. A number of observers attended the exercise including a good contingent from industry and from the Australian government.
- A vaccination exercise was undertaken on 7 December. Further information will be included in the next issue of *Viral News*.
- The procedure for NZX notification has been finalised and agreed by MPI, after Market Access indicated that they did not have issues with the proposed process. A confidentiality agreement with NZX and with the Financial Markets Authority is now in the process of being finalised.
- A successful planning session was held to outline objectives, milestones and deliverables for each of the subjects of the Trade project. Work has already commenced in several of the streams.
- A package of communications material has been sent out to technical groups for review.
- The carcass disposal team made visits to landfills. These have proven to be very useful and the landfill biosecurity protocols are almost complete. Another visit to a truck depot was extremely useful demonstrating that they already have the facilities and standard protocols for cleaning and leak testing the types of trucks we would need for transporting carcasses and advanced tracking systems.

- The updated meat Risk Organism Response Plan (RORP) guidelines, which were reviewed in partnership with the MIA, have been approved and are now on the MPI website. Three workshops were held to consider overall options for RORP requirements under either the Animal Products Act or the Biosecurity Act. Further workshops are planned to finalise the recommended way forward.
- Five out of six milestones in the first 72 hour operational project have been met. The final overarching document for this project was completed at the end of October.
- A first gap analysis workshop was held with project and industry representatives. Information and feedback from the workshop will be compiled and used in the FMD programme.
- An information sharing session was held in August with participation from central and local governments, AsureQuality and industry. The session focused on specific elements in the disease management area and also looked at a 'Whole of Government' approach, which explored how MPI would work with other government agencies in a FMD response. These sessions are a good way to communicate what MPI and industry are working on to get ready for a large scale FMD event.

I hope you enjoy this issue of Viral News. Please feel free to email us if you have any stories or updates you would like to share in our next issue.

Regards

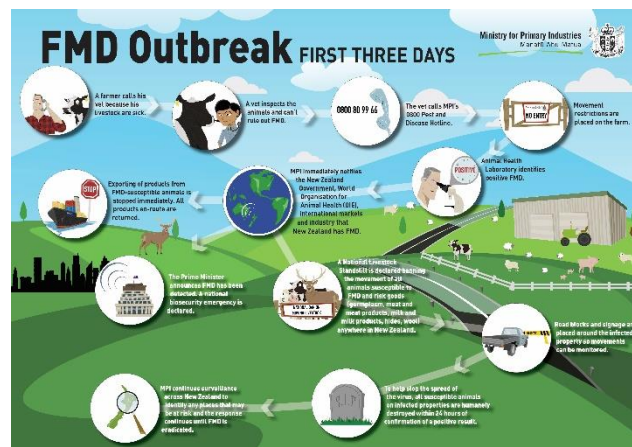
Fiona Bancroft, Programme Manager, FMD Readiness Programme

Ministry for Primary Industries

First three days of an FMD outbreak - infographic

An infographic outlining the actions that the response team will make in the first three days (72 hours) of an FMD outbreak is being finalised. It will be imperative to respond quickly and effectively to any suspected foot-and-mouth disease (FMD) outbreak.

This poster shows what will happen in the first three days of an FMD outbreak. After that the response will continue until FMD is eradicated.



[Download the poster *FMD Outbreak: First three days*](#)

The activities include:

- A whole-of-government biosecurity response, led by MPI, is put in place immediately.
- MPI initiates its FMD Response Plan.
- The OIE (World Organisation for Animal Health) and international markets are notified of the loss of our FMD-free status, and trade in FMD susceptible animal products is suspended.
- National and regional briefings of officials and key stakeholders are carried out.
- A National Livestock Movement Standstill is declared, prohibiting the movement of all animals susceptible to FMD, as well as their semen and embryos.
- Controlled Area Notices are issued to control the movement of stock and risk goods and to quarantine and inspect animals within infected and high risk zones.
- Checkpoints, road blocks, decontamination stations, compliance patrols and livestock movement bans are set up, with help from the police, local and regional councils.
- New Zealand media and members of the public are briefed and frequently updated, and a public awareness campaign is launched to help people understand what to do (for example, follow movement controls) and the consequences and risks of not doing what is required.
- Intensive investigation and tracing of all livestock and risk goods movements on and off infected properties is carried out to identify other potential sites with FMD.
- Stock on infected farms (where positive cases of FMD have been confirmed) and, possibly, on farms that have been assessed as likely to have been exposed to the virus, are humanely destroyed and disposed of. Note that this applies only to susceptible species. Horses, poultry, dogs and cats are not affected.
- Whole-scale decontamination of sites, vehicles and other high-risk items is carried out.

Using landfills for carcass disposal

Rapid and safe disposal of a large number of carcasses in the event of a FMD outbreak and response will be critical in eradicating the disease and accelerating New Zealand's return to normal. Carcass disposal poses biosecurity, environmental and health risks that have to be carefully managed.

Eve Pleydell, project lead for MPI's FMD Carcass Disposal Project says, "The carcass disposal operational plan outlines on-farm burial, municipal landfills and on-farm pyres as options available to us at the outset of a FMD response. Other options may become available as the response progresses. The best option for each property will depend on the particular situation, e.g. the location of the property, geographical features, and proximity to a suitable landfill etc."

Each of the options in the operational plan has been explored for its efficacy and viability. In order to determine the viability of using municipal landfills MPI has been working closely with AsureQuality and DairyNZ.



All the landfills across six councils were asked to complete a worksheet about the features of that landfill (e.g. capacity, whether the landfill is lined, whether there are leachate and gas management systems in place, whether there is space for the disinfection of trucks etc).

Eve says, "We (MPI, AQ and DNZ) also visited two of the largest and most modern landfills in New Zealand to develop and refine the landfill biosecurity protocols – guidelines outlining the requirements for the use of landfills, to ensure that the operations do not spread the virus and do not cause environmental and health impacts."

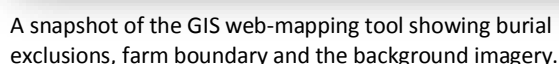
"The results of the initial survey showed that a number of landfills in NZ are not suitable for use as carcass disposal sites, as they do not have the required liners in place or suitable leachate/gas management systems. Two landfills are suitable for immediate use, a further sixteen would also be suitable but would take a few days to get the appropriate systems and processes set up."

Another visit to a truck depot, and working with the Road Transport Forum, have highlighted further operational considerations to be factored into planning, especially how the unloading of carcasses and subsequent cleaning and disinfection of the trucks would be managed.

These visits have highlighted the wealth of knowledge and expertise held by landfill and transport operators in NZ and how much they could contribute to the successful management of a FMD response.

After two years of development, the carcass disposal GIS database and site screening tools are now complete, with both burial and pyre exclusion layers incorporated.

“During an actual response the database would be used by GIS analysts to assist with regional level disposal planning, and also by disposal planners while they’re assessing an infected farm to help select the best disposal option for that property.”



The GIS web service can be accessed through the web mapping application on any mobile device and is secured based on access to the data and the application. Planners are able to view exclusion layers, see where the nearest suitable landfills are and using another recently developed GIS Application (using Survey123 for ArcGIS) electronically complete the carcass disposal decision checklist using their mobile device.

The GIS database and web service were tested by regional council users at workshops held in April, and were further improved by incorporating the feedback from the workshops. They were field tested during Exercise Akuaku on 19 October.

South East Asia China Foot-and-Mouth Disease control programme launch

Two MPI's veterinarians represented MPI in Laos in late July at the official launch of the initiative to support the South East Asia China Foot-and-Mouth Disease control programme (SEACFMD). Veterinary Epidemiologists Andrew McFadden and Tom Rawdon attended the official opening of New Zealand's FMD programme for SEACFMD along with Foreign Minister Murray McCully.

New Zealand is funding the five-year programme which will focus on Laos and Myanmar, and includes vaccination of cattle in high risk areas. It aims to improve foot-and-mouth-disease control in south-east Asia, and at the same time protect New Zealand's borders from the disease.

Dr McFadden, who is also New Zealand's SEACFMD National Co-ordinator, says for control to be successful, accurate information is required.

"This includes why disease occurs in certain areas, the factors that influence it and the impact it has on households. Knowledge of this key information will help us develop a response to control FMD, boost livestock production and raise household incomes for local farmers."

He says the programme also offers Kiwis the valuable opportunity to contribute while increasing their understanding of the disease.

"We are trained and prepared to deal with a foot-and-mouth-disease outbreak in New Zealand, but we've fortunately never had one. Responding to outbreaks is quite different from preparedness where we shadow-box a disease we don't have."

The MPI representatives will also train vets in Cambodia on the best practice for responding to the disease early and controlling it.

Dr McFadden says helping to control FMD in the areas of south-east Asia where it is endemic will also help to reduce the risk of FMD to New Zealand in the future, through passengers and products arriving here from those areas.

The objectives of our involvement in the SEACFMD programme are:

- To provide a NZ profile to the programme.
- To benefit NZ Inc.
- To provide technical oversight and ensure the programme is successful.
- To build capacity within MPI staff (investigation and response to FMD)

Projects undertaken by the MPI team will include:

- Training disease control personal in methods of surveillance: Laos, Cambodia and Myanmar
- Spatial risk assessments (using secondary data) Laos
- Risk factor analysis including spatial factors Myanmar (using secondary data)
- Baseline survey questionnaire in Laos and Myanmar
- Project direction through Technical Advisory Groups in Laos and Myanmar



Minister of Foreign Affairs, Murray McCully in Laos at the launch of the South East Asia China FMD control programme

- Contribution to SEACFMD through the national coordinators meeting
- Laboratory capability project in Laos
- Involvement of other NZ experts (outside of MPI)

FMD profile – Biosecurity Policy team

Meet some of MPI's Biosecurity Policy team: Kate Hellstrom (Manager), Chris Baddeley (Principal Analyst) and James Kilbride (Senior Analyst).

Kate Hellstrom is the manager of MPI's Readiness and Response Policy team ("biosecurity policy"). We talk to Kate about her role at MPI and how she's using her biosecurity experience to progress New Zealand's FMD preparedness work.



Kate joined MAF in 2002, initially in the Animal Welfare Group, where she supported the two independent Ministerial advisory boards – the National Animal Welfare Advisory Committee and the National Animal Welfare Ethics Committee. In 2003 she joined the Biosecurity Authority as a National Advisor in the Policy Coordination Group, and she stayed in this team during its future iterations.

During this period, Kate has provided policy advice during MPI-led responses to suspected biosecurity incursions and food safety incidents, assessed claims for compensation lodged under the Biosecurity Act 1993, and provided core policy advice on the biosecurity system. She was part of the policy team that provided advice to the FMD Preparedness Programme on all work streams.

During 2015 Kate was seconded to work on the review of the National Pest Management Plan for Bovine Tuberculosis. The amended TB Plan has now commenced, with new shares and funding arrangements in place for the dairy, beef, deer sectors and the Crown.

Chris Baddeley (Principal Analyst)

As a founding member of MPI's Readiness and Response Policy team, Chris Baddeley (Principal Analyst) began his career with the New Zealand Forest Service in 1976 and his first years were spent gaining a Bachelor of Forestry Science.



Chris has also worked for the Department of Conservation and the Ministry of Forestry. During his career Chris has undertaken a range of field work, been involved in forestry operational work, worked at a research station, and worked at district level and head office level.

For the last 25 years Chris has been involved in policy development as an analyst and manager. He has been involved in three reviews of the Bovine TB plan and numerous biosecurity responses. In addition he has worked on readiness programmes, including NAIT, GIA and development of MPI's biosecurity response system.

Chris was involved in Operation Waiheke and Exercise Taurus in 2005 and again in 2012 (the latter as an exercise planner and actor on the "dark-side"). As a past member of the FMD project governance group, Chris has been involved with FMD preparedness from its inception. Chris is currently working on FMD compensation arrangements and Whole of Government arrangements.

Chris now works three days a week and enjoys tramping and playing tennis.

James Kilbride (Senior Analyst)

As a relative new comer to biosecurity, James joined MPI's Readiness and Response Policy team in December 2014. James grew up on a dairy farm in the Waikato and was steered away from joining his two older brother on the family farm until he'd "done something else". After completing an apprenticeship as a Fitter/Turner, James did an O.E and then went on to study Environmental Management (majoring in Policy and Planning). After 10 years in planning related policy work (most recently at the Kapiti Coast District Council), James decided it was time for a change and joined MPI.



While working on the review of the Kapiti Coast District Council's contentious District Plan Review, James gained valuable experience in working with stakeholders, and in distilling complex issues into policy documents.

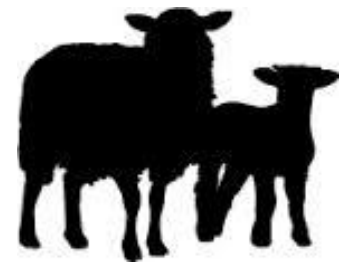
Soon after joining MPI James was thrown into the fast paced Queensland fruit fly response, and enjoyed that so much he's been involved in several responses since (e.g. pea weevil and black-grass). When he is not responding to biosecurity incursions, James has also been involved in NAIT, and took the impractical-to-tag exemption levy regulations through the government process in early 2016, to get the new levy in place by 1 July 2016.

Government Industry Agreements (GIA) have also kept James out of trouble and he has been involved in reviewing mandate applications as more partners join the GIA. On the FMD front, James has been involved in providing updates to the Minister on the FMD programme and also involved in the movement control project (specifically looking at livestock-in-transit).

When not studying economics in his spare time, James is either hanging out with his six year old daughter or attending fire service call-outs as part of the Paekakariki Volunteer Fire Brigade.

The Quadrilateral zoning project

The four Animal Health Quadrilateral (“Quads”) countries (Australia, Canada, New Zealand and the USA) signed an agreement in May 2016 for the *in principle* recognition of disease zoning in the event of an outbreak of a foreign animal disease (such as foot-and-mouth disease or avian influenza) in any of the signatory countries. A working group with members from the four countries is progressing refinement of the agreement, which will allow for the implementation and recognition of such zones. This ongoing work includes outlining how each country would implement zoning, the criteria that would be considered in defining the zones, and the reassurances that would need to be provided by an affected country that there are robust measures in place for the free zones to be confirmed and maintained as free. The USA and Canada are already well progressed in this area, and the benefits of zoning have already become apparent in the recent avian influenza outbreaks in North America, where trade impacts in poultry and poultry products were significantly reduced.



Other QUADS trade work

Other Quads initiatives that are underway and that complement the zoning work include actively pursuing changes to the OIE (World Organisation for Animal Health) Terrestrial Animal Health Code. This Code sets the international standards for the trade in animals and animal products. Code amendments or additions that have been proposed by the Quads countries and that are currently in the OIE process include:



- Amending the minimum period before a return to FMD freedom can be considered by the OIE if vaccine has been used and the vaccinated animals are not culled from its current 6 months to 3 months (after the last FMD animal was culled). This would bring the waiting period for the *vaccinate-to-live* approach in line with the *vaccinate-to-die* approach (where all vaccinated animals are culled). This current 3 month vs. 6 month differential is regarded as a significant disincentive to the use of vaccine in the event of an outbreak.
- Allowing for FMD containment zones to be declared *while* an outbreak is still continuing, provided that it can be shown that the disease has successfully been contained to a clearly defined geographic area. This would then allow trading (with conditions as appropriate) to resume from the area outside of the containment zone once established and agreed. The Code currently does not permit such a containment zone to be established until *after* it can be shown that no new cases of FMD are occurring.
- Recognition that the processes used to produce milk powder or butter are the equivalent of a **second** pasteurisation of milk or cream. This second pasteurisation is currently a Code requirement for the inactivation of FMD virus in milk and cream (with a pH of 7 or more) where a country is not FMD free.

Destruction, disposal and disinfection operational plans a good fit

The success of Exercise Akuaku, held in the Waikato last month, shows operational plans to be used in the event of a foot-and-mouth outbreak are well on track.

FMD project manager Edwin Ainley says the MPI-led exercise was held to test operational plans for animal destruction, carcass disposal and disinfection. It was held at a Te Rapa dairy farm on October 20 and involved about 30 people from MPI, AsureQuality, livestock industry bodies and a number of Australian observers from state governments. No animals were involved in the exercise.



The simulated scenario was an infected dairy farm about a week into an FMD outbreak. The exercise kicked off with the incident controller, planners and operations teams arriving at the farm to take over from the surveillance vet already on site.

“The aim of the exercise was to test that our operational plans all work together when we are actually on site, and also to make sure the roles assigned fit together on-farm too. We were really happy to see everything went smoothly.”

A gate disinfection control unit was set up and a transport truck cleaned and disinfected with water and detergent as part of the exercise.

“The disinfection team followed the instructions in the plan and were able to set up the gate control unit in just half an hour, so everyone who entered the farm went through the boot wash to make sure they didn’t bring any pests or disease on to the property.

“Things worked well for the destruction planners too, and we’ve picked up a few improvements like putting together a checklist so they can tick off each step as it’s done.

“We also had some of the disposal team in personal protective equipment with two pairs of gloves using iPads in zip-lock bags. They managed to use the touch screens to locate the best disposal sites with help from our maps, despite all the extra gear. Then everything could be disinfected properly afterwards.”

He said the use of multiple iPads allowed participants to share decisions with team members in a remote location, who played the role of a regional co-ordination centre as part of the exercise. This meant progress could be monitored and support provided as questions came up throughout the day.

The one-day exercise is part of the suite of work underway to make sure New Zealand is well prepared to deal with the disease in the unlikely event that it occurs here. The plans have been developed over three years with input from the livestock industry and local government as well as overseas input.

FMD is a highly contagious animal disease. An outbreak in New Zealand would cause serious production losses and devastate trade. It is estimated that an outbreak of FMD could cost New Zealand up to \$16 billion, a cost of more than \$3000 for every New Zealander.

In an outbreak a property with even one infected animal would have all of its FMD-susceptible stock humanely destroyed within 24 hours. This would include all cattle, sheep, deer, pigs and goats. National movement restrictions would also be put in place immediately when the disease is confirmed, to reduce the risk of the disease being moved around the country by infected livestock.



Industry contacts for FMD readiness activities



Chris Houston
Manager Technical Policy
chris.houston@beeflambnz.com



David Burt
Senior Advisor, Primary Sector
dburt@fedfarm.org.nz



Nita Harding
Technical Policy Advisor
(veterinary)
nita.harding@dairynz.co.nz



Paul Goldstone
Policy Manager
paul.goldstone@mia.co.nz



Sue Walsh
Manager, On Farm Risk
sue.walsh@fonterra.com



Frances Clement
Manager Policy and Issues
frances.clement@pork.co.nz



Catharine Sayer



Science and Policy Manager
catharine.sayer@deernz.org

