Foot-and-mouth disease – the MPI work programme

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Manatū Ahu Matua

Presentation to the Plant Biosecurity Council (12 October 2022)

Outline

- What is FMD and how could it arrive here?
- What we are doing to keep it out
- FMD Task Force
- Current work
- Snapshot of an outbreak
- On-farm biosecurity

Key messages

- **New Zealand is free from foot-and-mouth disease (FMD)** and we have never had a case here
- **It is very unlikely that FMD will arrive in New Zealand** as we have a robust biosecurity system in place with strong border measures to keep it out
- **We take the threat of FMD seriously** - we are monitoring the current Indonesian FMD response closely with our Australian counterparts and supporting readiness activities in the Pacific
- **We are working closely with partners in the animal sectors, across government and in the regions** to build resilience to FMD and modernise our approach, capturing learnings from COVID-19 and the *Mycoplasma bovis* eradication programme.

What is foot-and-mouth disease (FMD)?

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- The most significant biosecurity threat faced by New Zealand
- A highly-contagious viral disease that infects cloven-hooved animals including cattle, pigs, deer, sheep, goats and alpaca
- It is an animal disease that can affect productivity
- It is not a food safety issue
- It does not have direct health effects on people - but an outbreak could create serious psychological effects It spreads by breath, saliva, mucus, milk, faeces and on the wind
- It can move rapidly between farms – helped by animal and people movements; contaminated equipment and truck movements; and by wind and water.

Global context

- Endemic in many countries (77% of global herd) including China and Malaysia
- Some countries manage FMD and maintain disease-free herds/flocks
- Countries with FMD can export to some markets, but with conditions (e.g. to the US with heat treated products)
- Outbreak in Indonesia presents no significant increase in risk to New Zealand
- But because it's a new outbreak, we have looked at our biosecurity settings and made some adjustments accordingly.

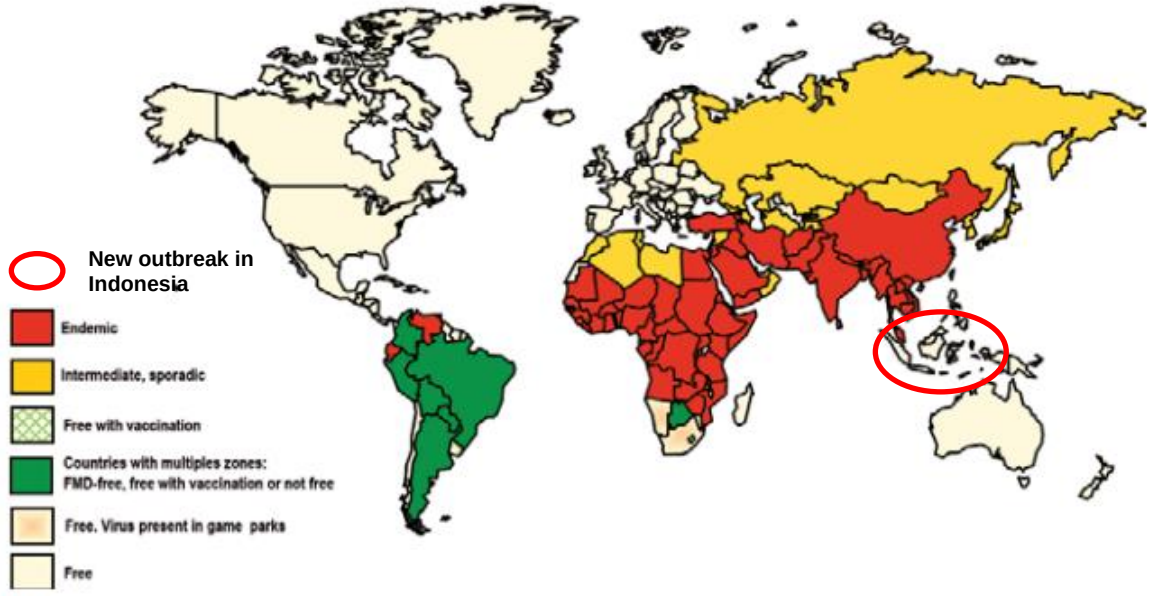

Fig. 1
The conjectured status of foot and mouth disease

Why is it a concern?

- A case here would halt all export trade in most animal products
- We would lose our FMD-free status (upon which much of our current market access for animal products is granted)
- There would be significant social costs felt across the entire country with the need to cull stock and quarantine farms. It would be very challenging for rural communities
- A costly all-of-Government/Industry response would be required to eradicate the disease and manage the consequences.

How could FMD get here and spread?

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- Our strict importing requirements for risk goods – combined with our robust border protection means the risk is low
- The most likely route of entry into New Zealand would be illegal importation of risk goods such as meat or animal products
- Exposure is most likely through contaminated animal products fed to pigs – but the virus must be viable and of sufficient quantity to create an infection
- Intensively-housed infected pigs are highly infectious to any cloven-hoofed animals - potentially up to several kilometres away through airborne spread
- We have rules around feeding swill to pigs – any meat or food that's been in contact with untreated meat, must be boiled for an hour
- There is a current education campaign reinforcing the swill feeding regulations.

Keeping it out

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Multiple layers of protection include:

- 100% of luggage X-rayed on arrival
- All passengers from Indonesia risk profiled and exit through disinfectant foot mats
- Personal consignments of cooked/treated meat from Indonesia banned
- Additional biosecurity measures for all shipping containers and imported goods from Indonesia
- All mail from Indonesia screened in a dedicated process by dogs and X-ray
- An extensive education campaign for inbound passengers from Indonesia including digital advertising, leaflets, airport signage, communications from partners and media releases.

FMD Task Force for readiness

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- Updating our existing plans, creating an operational blueprint for an FMD response, and rapidly accelerating our level of preparedness
- Governed by the MPI Senior Leadership Team
- Under a dedicated FMD Task Force Director and leadership team, with subject matter experts from across MPI
- Working closely with the animal sector industry bodies, Government Industry Agreement (GIA) partners for Biosecurity Readiness and Response and other government agencies
- Incorporating what was learnt from emergencies such as the response to the cattle disease *Mycoplasma bovis* and Covid-19
- Key focus is on managing any outbreak here and eradicating the disease.

Strengthening our plans

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Our existing plans, developed with the animal industries and other agencies, have been boosted by:

- Increased veterinary disease management experience, appointing a Chief Veterinary Officer and connection with the wider commercial vet sector
- Improved coverage and accuracy of record keeping (NAIT) to support cattle and deer traceability and market assurance
- Compensation team and processes in place to enable rapid payments to affected farmers
- Newly built PC3+ biocontainment laboratory, with capacity for 7,000 tests a day (to meet a modelled likely FMD scenario)
- Pre-purchased vaccine bank access, manufacture and rapid delivery to New Zealand
- Stores of equipment, PPE and supplies ready to deploy to field
- Established government/Industry co-ordination and regular engagement with sectors.

FMD outbreak – the response strategy

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Rapid response to eradicate FMD

- National Livestock Standstill
  - Susceptible animals must stay on current property
  - Generally, animals in transit carry on to intended destination
  - If destination is sale yards, they must return to property of origin
  - If origin of journey is much closer than destination, return to original property
  - No Cook Strait stock movements
- Stamping it out (eradication)
  - Determine the distribution and scale of outbreak
  - Declared areas and movement controls
  - Infected stock destruction
  - Disposal, cleaning, and disinfection of farms
  - Potential for vaccination
- Minimising impacts on people, animals and the economy

FMD outbreak – effects of controls

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- Focus on controlling risk goods, susceptible animals and germplasm – not people
- In a defined ‘High Risk’ area – vehicles and equipment/clothing that has been in contact with live susceptible species or their by-products (e.g. milk or manure) would need cleaning and disinfecting to move off the property
- In ‘At Risk’ areas (rest of New Zealand), goods other than susceptible animals, milk and germplasm will move freely
- People who visit and work on-farm will need to work closely with farmer colleagues to support on-farm biosecurity
- A successful FMD response would depend on running a high-trust model where everyone is asked to work together to free New Zealand from FMD.

Farmer and community support

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- An FMD response could have severe effects and tailored support is essential
- Welfare and recovery support needs are being factored in
- Incorporating lessons from *M. bovis* and other responses
- “Place managers” to be identified and trained as a single point of contact for each property where FMD is detected
- Support to enable compensation under the Biosecurity Act
- A joined up approach to support by MPI, industry, iwi, communities, local and central government.

On-Farm Biosecurity

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- **Ensure everyone on-farm follows Biosecurity New Zealand guidance if they are travelling overseas**
  - Declare all risk goods and if you have been in contact with livestock
  - Don't bring in animal products
  - If you have been on a farm – clean your footwear before you head home
  - We also urge anyone who has had contact with livestock in countries with FMD to stay away from farms and susceptible animals in New Zealand for one week

- **Review biosecurity practices on-farm and have an up-to-date biosecurity plan**
  - Good information on the DairyNZ and Beef+Lamb New Zealand websites as well as MPI
  - Do not feed uncooked swill to pigs

- **Get familiar with the symptoms of FMD:**
  - Drooling and smacking the lips
  - Shivering
  - Tender feet with sores and blisters
  - Raised temperature
  - Drop in milk yield and sore teats

If you any of see these signs in pigs, cattle, sheep, goats, deer, alpacas or other cloven-hoofed animals – **immediately contact your vet or MPI on 0800 80 99 66**

Ngā mihi