National arrangements for emergency animal diseases

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What is biosecurity?

A set of measures taken to prevent the entry to or to minimise the effects of a disease on a population of susceptible animals.

Biosecurity measures can be enacted at the national, state/territory, industry or individual enterprise level.

Biosecurity usually relies upon the implementation of a range of complimentary measures.
Case study on disease recognition

- Monday morning at an export abattoir
- On plant vet called to the lairage to inspect a group of pigs
- Depressed, reluctant to stand
- Some have ulcerations on snouts
Questions

• What would the on plant vet do?

• Would they notify anyone?
  • If so, who and how?

• What else would they do?

• Who would conduct the initial investigation?

• What is the area technical manager’s role in the incident?
Questions

• How would animals at the abattoir be managed?
• When would culling be considered?
• Who would make that decision?
• Would other consignments be accepted?
• What advice would be given to workers on cleaning and disinfection?
Based on experience from Cheale’s abattoir in the UK FMD 2001 outbreak

• Some attributed lesions to ‘reaction to disinfectant’

• Vet notified the UK State Veterinary Service.

• Suspected FMD or swine vesicular disease.

• Abattoir under quarantine orders that morning.

• Culling completed 30 hours later.
General surveillance in Australia

• Matthews Report (2011):

‘There is still a strong possibility that an incursion of FMD may not be readily detected.’


‘[It] could take several weeks or longer for an FMD incursion to be notified’

• Several initiatives are underway to review Australia’s animal health surveillance requirements
  • Livestock biosecurity network
  • Enhance general surveillance strategy
  • National significant disease investigation program
Role of abattoirs in animal disease surveillance?

• What role do on plant vets and meat inspectors play in Australia’s surveillance systems?
  • Screw worm fly, FMD, anthrax, CSF, ASF, TSEs

• Can we use the data from abattoir surveillance better:
  • to monitor levels of endemic disease?
    • national sheep health monitoring project
  • to support cases for disease freedom?
    • sheep abattoir surveillance program

• Are there any impediments to using abattoirs to get samples for future active surveillance programs?

Remember negative information is as valuable as evidence of infection for trade purposes
National decision making in animal health emergencies

Council of Australian Governments

Cabinets: national/state/territory

Ag Min

National management group
(includes industry representatives)
Chair: Secretary of Australian Government Department of Agriculture, Fisheries and Forestry

Commonwealth–State Policy Taskforce
(trade, recovery, economic, social, industry)

Emergency Management Australia
(national logistics coordination)

Consultative Committee on Emergency Animal Diseases (CCEAD)
(scientific, veterinary)
(includes industry and health)

Socioeconomic recovery
Communications
Logistics
Disease control

Commonwealth–states–territories–industry response arrangements
This framework augments current arrangements in which states and territories are the prime authorities in combating the disease outbreak in accordance with AUSVETPLAN and emergency management arrangements.
Consultative Committee on Emergency Animal Diseases (CCEAD)

Coordinates the national technical response to emergency animal disease incidents

• provides the technical link between the Commonwealth, states, territories and industry for decision making during animal health emergencies

• Chaired by the Australian CVO

• CVOs of the states and territories, technical experts from AAHL, industry signatories to EADRA, Dept of Health & Dept of Environment

• Animal Health Australia and Wildlife Health Australia are observers
National Management Group (NMG)

National group overseeing coordinated emergency responses

- Decide on cost sharing (if invoked)
- Make decision on policy and financial advice after technical advice from CCEAD
- Chaired by Secretary of Dept of Agriculture
- CEOs of state/territory DPIs and peak industry bodies.
State Co ordination Centre (SCC)

Responsible for coordination of state-wide response and investigations outside the initially infected area (Restricted Area)

• Objectives:
  – Develops a Response Plan for approval by CCEAD and NMG
  – Strategic planning and finances
  – Develop, implement and coordinate control activities in the state
  – Coordinate disease investigation, tracing, surveillance and movement controls outside the Restricted Area
  – Liaise with CCEAD, national, state and territory authorities
  – Brief state minister and department executive
  – Communications
Local Control Centre (LCC)

Responsible for operations to eradicate and control disease inside the Restricted Area:

- Operates under policies determined by the state control centre, consistent with the response plan

- Objectives:
  - Identify source of infection
  - Conduct surveillance (identify outbreaks)
  - Eradicate known outbreaks
  - Control spread by implementing movement controls, culling, tracing of contacts, decontamination, vaccination* etc
  - Cooperation and communication with industry and community
  - Record keeping
  - Report to State Control Centre
Emergency Animal Disease Response Agreement (EADRA)

- EADRA is a formal, legally binding agreement on cost sharing for disease responses
- Includes Australian government, state and territory governments, Animal Health Australia, and 14 livestock industries
- Direct costs of response only are covered:
  - salaries and wages
  - operating expenses
  - capital costs
  - compensation for destroyed livestock etc.
## Disease categories in EADRA

<table>
<thead>
<tr>
<th></th>
<th>Criteria</th>
<th>Example</th>
<th>Cost-sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• Predominantly affect humans and/or environment</td>
<td>Rabies</td>
<td>Govt 100%</td>
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<tr>
<td></td>
<td>• May have limited impact on livestock</td>
<td></td>
<td>Ind 0%</td>
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<tr>
<td>2</td>
<td>• Have major socio-economic impacts</td>
<td>FMD, H5/H7 HPAI</td>
<td>Govt 80%</td>
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<td></td>
<td>• Have severe livestock production losses</td>
<td></td>
<td>Ind 20%</td>
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<tr>
<td>3</td>
<td>• Significant but moderate socio-economic impacts</td>
<td>Clinical blue-tongue in sheep</td>
<td>Govt 50%</td>
</tr>
<tr>
<td></td>
<td>• Severe livestock impacts</td>
<td></td>
<td>Ind 50%</td>
</tr>
<tr>
<td></td>
<td>• No human health or environmental impacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>• Mainly cause production losses</td>
<td>Bovine TB, pseudo-rabies</td>
<td>Govt 20%</td>
</tr>
<tr>
<td></td>
<td>• Some socio-economic impact</td>
<td></td>
<td>Ind 80%</td>
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### Australian Veterinary Emergency Plan (AUSVETPLAN)

- A series of technical response plans that describe the proposed Australian approach to an emergency animal disease (EAD) incident
- Provide science-based policy guidelines and a planning structure

<table>
<thead>
<tr>
<th>Disease Strategies</th>
<th>Operational Procedures Manual</th>
<th>Enterprise Manuals</th>
<th>Management Manuals</th>
<th>Guidance Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies for all EADRA diseases</td>
<td>e.g. Decontamination, Destruction, Disposal, valuation and compensation</td>
<td>e.g. Saleyards and Transporters</td>
<td>e.g. Control Centre Management Manuals (Parts 1&amp;2)</td>
<td>e.g. Premises Classifications</td>
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</table>
When a suspected emergency animal disease is reported

**Owner, private veterinarian or OPV** notifies authorities of suspected clinical signs (helicopters won't necessarily descend from the sky)

- **State/territory** - responds by visiting the property and applying necessary measures (such as quarantine). State CVO notifies:
  - **Australian CVO** (within the Department of Agriculture, Fisheries and Forestry (DAFF)).
  - **Consultative Committee on Emergency Animal Diseases** - If necessary a national response is commenced, coordinated by DAFF
    - confirms the EAD (after diagnosis)
    - agrees an EAD response plan (based on [AUSVETPLAN](#))
    - advises **National Management Group** of EAD response plan and indicative cost
      - National Management Group
        - based on advice by CCEAD, approves the EAD response plan and through this activates cost-sharing ([EADRA](#)).

- **Department of Agriculture** notifies the OIE and trading partners
Lessons from past outbreaks (1)

Exotic, emerging and emergency diseases do occur

- Pigeon paramyxovirus type 1
- Avian influenza
- Abalone herpes-like virus
- Newcastle disease
- Australian Bat Lyssavirus
- Hendra virus
- Screw worm (human case)
- Epidemic anthrax
- Equine influenza

Consider exotic, emerging and emergency diseases in differential diagnosis lists
Lessons from past outbreaks (2)

Impacts extend beyond the affected industry

Equine influenza in 2007:

• **Impacts on owners**
  - caring for sick animals
  - loss of income leading to reduced self-esteem
  - enforced or self-imposed social isolation

• **Impacts on other industries**
  - loss of income

• **Impacts on government**
  - loss of income, trust
  - diversion of resources from other activities
Lessons from past outbreaks (3)

Diseases don’t read text books

• Propagating epidemic of anthrax in Victoria in 1997

• FMD in Japan 2010: vet called to the index property initially for milking buffalo with diarrhoea

Hence recognise and report the unusual, but not necessarily a ‘text book case’
CSF outbreak in 1960-1

- Disease very mild
- Detected through carcass condemnations and mortality

Source: Golding 1962
Take Home Message

• On plant vets and ATMs are integral to our surveillance systems for emergency animal diseases
  – If they see something unusual or unexpected, EADs should be considered in the list of differential diagnoses.

Look. Check. Ask a Vet. 1800 675 888