The Threat of Bird Flu and Other Maladies: Lessons From the Poultry Industry

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Poultry Industry Association of New Zealand (Inc.)

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Overview

- The 4 R's of Biosecurity:
  - Reduction
  - Readiness
  - Response
  - Recovery

- These categories will be discussed with respect to what they mean and how the poultry industry has worked in these areas.

New Zealand Poultry Industry

- Biosecurity is a crucial issue
- Unique in the world in that we are free from the three major poultry diseases
  - Highly Pathogenic Avian Influenza
  - Infectious Bursal Disease
  - Newcastle Disease
- Regularly referred to as the healthiest place in the world to grow poultry

Reduction

Defined as: “Pre-border and border activities associated with reducing arrival or chance of establishment of risk organisms which impact on the values we wish to protect.”

Reduction Initiatives

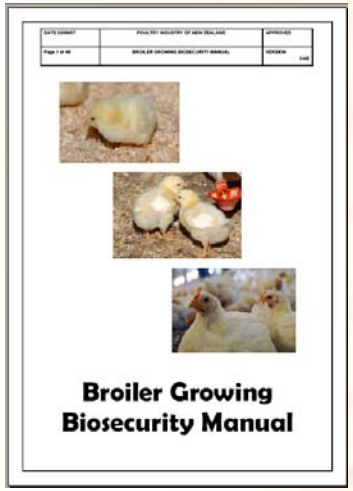
- A strong industry focus on the crucial areas of Import Risk Analyses, Import Health Standards and the submission process.
- The Biosecurity Risk Profile – a massive project aimed at identifying risk pathways for the three major exotic diseases in the poultry industry
  - Avian Influenza, Infectious Bursal Disease, Newcastle Disease

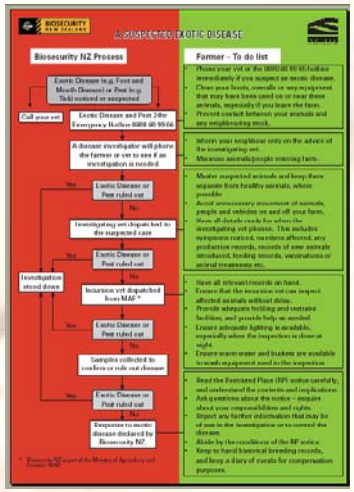
Readiness

Defined as: “Preparedness to manage a biosecurity response, including surveillance to detect organisms, contingency planning and capability building.”

Readiness Initiatives

- Industry training
  - Posters sent out to all layer farmers on biosecurity
  - Broiler Growing Biosecurity Manual produced in conjunction with NZFSA– a guide to what should be in company biosecurity manuals
- Disease surveillance, passive & active
  - IBD (Infectious Bursal Disease)
  - IB (Infectious Bronchitis)
  - AI (Avian Influenza)





Readiness Initiatives

- Case study: IBD


Infectious Bursal Disease Information Sheet

Information for Producers

Issued by
The Poultry Industry Association of New Zealand
and the Egg Producers Federation of New Zealand

This Information Sheet on infectious bursal disease (IBD) explains why the maintenance of New Zealand's IBD free status is so important to New Zealand poultry producers and consumers and what is being done by the wider poultry industry to ensure that the New Zealand poultry flocks remain IBD free.

New Zealand has a unique poultry health status

New Zealand has a unique poultry health status and is the only country in the world that is free of all three major diseases affecting poultry. These three diseases are infectious bursal disease (IBD), Newcastle disease (ND) and highly pathogenic notifiable avian influenza (HPNAI).

STOP

Biosecurity, both on-farm and at the border, is important in ensuring that New Zealand remains free of the three major diseases affecting poultry.

What is infectious bursal disease?

Infectious bursal disease (IBD) is an acute contagious viral disease of young chickens. Also known as "Gumboro disease" after Gumboro, Delaware where the first outbreaks occurred, IBD was first recognised as a specific disease entity in 1962.

The target organ of the IBD virus is lymphoid tissue and in particular the bursa of Fabricius, an important organ in the development of the chickens' immune system. Consequently, infection with IBD potentially leaves the young chicken with a reduced ability to mount an immune response and they are therefore less able to fight off other diseases.

Not only are the birds more susceptible to other diseases following infection with IBD, but they don't respond well to vaccination, which is an essential part of the poultry management system.

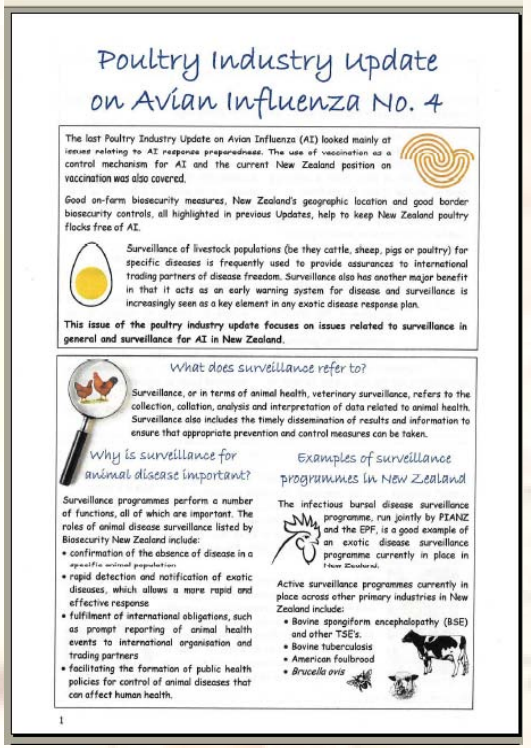
IBD is generally accepted as endemic in all other countries around the world and, depending on the strain, can cause varying levels of mortality in affected birds.

New Zealand is the only country in the world that is free of infectious bursal disease.

- First detection of IBD in 1993
- Industry control program began in 1994 (including active surveillance)
- Continual reduction of positive flocks from 1994-1999
- Objective: country freedom, as recognised by OIE
- Industry will achieve ten years of freedom in 2009

Readiness Initiatives

- Case study: Avian Influenza
- Catastrophic impact on world poultry industry
- Major political, media and public concern
- Passive surveillance already in place; active surveillance by MAF in 2006 (found free of HPNAI)
- Regular information updates sent to stakeholders



Poultry Industry Update on Avian Influenza No. 4

The last Poultry Industry Update on Avian Influenza (AI) looked mainly at issues relating to AI response preparedness. The use of vaccination as a control mechanism for AI and the current New Zealand position on vaccination was also covered.

Good on-farm biosecurity measures, New Zealand's geographic location and good border biosecurity controls, all highlighted in previous Updates, help to keep New Zealand poultry flocks free of AI.

Surveillance of livestock populations (be they cattle, sheep, pigs or poultry) for specific diseases is frequently used to provide assurances to international trading partners of disease freedom. Surveillance also has another major benefit in that it acts as an early warning system for disease and surveillance is increasingly seen as a key element in any exotic disease response plan.

This issue of the poultry industry update focuses on issues related to surveillance in general and surveillance for AI in New Zealand.

What does surveillance refer to?

Surveillance, or in terms of animal health, veterinary surveillance, refers to the collection, collation, analysis and interpretation of data related to animal health. Surveillance also includes the timely dissemination of results and information to ensure that appropriate prevention and control measures can be taken.

Why is surveillance for animal disease important?

Surveillance programmes perform a number of functions, all of which are important. The roles of animal disease surveillance listed by Biosecurity New Zealand include:

- confirmation of the absence of disease in a specific animal population
- rapid detection and notification of exotic diseases, which allows a more rapid and effective response
- fulfilment of international obligations, such as prompt reporting of animal health events to international organisation and trading partners
- facilitating the formation of public health policies for control of animal diseases that can affect human health.

Examples of surveillance programmes in New Zealand

The infectious bursal disease surveillance programme, run jointly by PIANZ and the EPF, is a good example of an exotic disease surveillance programme currently in place in New Zealand.

Active surveillance programmes currently in place across other primary industries in New Zealand include:

- Bovine spongiform encephalopathy (BSE) and other TSE's.
- Bovine tuberculosis
- American foulbrood
- *Brucella ovis*

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Response

Defined as: "The actions taken immediately before, during or directly after a risk organism has been confirmed where management of the risks posed by that organism is considered appropriate."

Response

- A response may include investigation of suspect risk organisms, identification of the pest or disease, containment, and initial assessments of the organism's impacts and response options.
- A response may also be initiated where the impacts of the risk organism have increased, or new response options become available, that make a response feasible.

Response Initiatives

- Technical Response Plans
  - Avian Influenza (completed)
  - Infectious Bursal Disease (in progress)
  - Newcastle Disease (in progress)
- Update of AgriBase information
- Derived from:
  - Biosecurity Risk Profile
  - Massey University/Biosecurity New Zealand Network Analysis project

Recovery

Defined as: "The co-ordinated efforts and processes to effect the immediate, medium and long-term regeneration of a community following an emergency or biosecurity event."

Recovery Initiatives

- Recovery efforts may begin immediately after the impact of the event and work in parallel with the response phase.
- Technical Response Plans
  - Need to reflect impact on industry
  - Industry need to understand what options for recovery are
- Compensation
  - Strong supporters of concept
  - Have compensated growers in past

Relationship with Biosecurity NZ

- The industry has a strong relationship with Biosecurity New Zealand, which has facilitated work in all four areas of reduction, readiness, response and recovery.
  - Strongly encourage staff to visit farms and all aspects of the industry to increase their knowledge
  - Supply technical knowledge on specialised areas when requested.

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Conclusion

- Reduction is the key issue – preventing problems before they can occur
- Planning for response and recovery are essential
- Crucial importance of working in a positive partnership with Biosecurity New Zealand to achieve appropriate outcomes for both parties and all stakeholders

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