**Level 3: Future Proofing Strategy**

**Biological Strategy Worksheet.**

**Bird Flu in New Zealand**

**Teacher Note:**

**Level 3: Future Proofing Strategy Worksheet**

This worksheet is a **Future Proofing Strategies** exercise based on **Bird Flu in New Zealand**

*The* ***Level 2 worksheet****, “Avian Bird Flu L2,”* exploring future proofing influences can be used as **prior learning**.

**Avian flu poses top biosecurity threat to NZ, says Hoggard**

Tuesday, 22 April 2025 08:55 Written by Nigel Malthus

<https://www.ruralnewsgroup.co.nz/rural-news/rural-general-news/avian-flu-biosecurity-threat-nz-poultry-minister-hoggard>

[](https://www.ruralnewsgroup.co.nz/media/k2/items/cache/d9ebe785b54dae05ef3a4ca20ce51f2e_XL.jpg)

Biosecurity Minister Andrew Hoggard.

**Avian flu getting into New Zealand's poultry industry is the biosecurity threat that is most worrying for Biosecurity Minister Andrew Hoggard.**

While foot-and-mouth is currently flaring in Europe, Hoggard says that is a threat we've always been aware of, but he is now particularly worried about avian flu.

"We can put up protections at the border and all the rest of it to keep foot and mouth and these other things out," he told *Rural News*.

"But there's bugger-all we can do about migratory birds from Antarctica, flying up with this disease and infecting our local wild birds and then potentially the poultry industry."

Hoggard noted that Australasia is the only place in the world that doesn't yet have avian flu, but the disease has moved down through North America - where it is having a major impact on egg production and is now into the dairy herd - through South America, then island-hopped to Antarctica. It is now moving around the Antarctic coast and has reached the Indian Ocean side.

"So, it's getting around to our side and then it can come up. We can't stop it coming."

As Biosecurity Minister, Hoggard said his focus was on making sure the poultry industry is prepared for that eventuality.

Egg producers needed to take the threat seriously and get their farms prepared to "do their own little mini lockdowns" to make sure that wild birds can't get into their barns.

"They need to be able to secure from the outside. So, stop any ingress of any wild bird coming into contact with the chickens."

He said it would be a "massive" problem for free-range producers.

Other parts of the world still have free range producers, but they work on the basis that they must shut the birds in when they get a warning that bird flu is in the wild population in the area.

Hoggard recently announced the successful testing of a portable laboratory for sampling and testing for avian flu in remote locations like Antarctica and the sub-Antarctic islands.

Biosecurity New Zealand tested the equipment during a voyage to Antarctica on the icebreaker MV Argus.

"This was an incredible opportunity to be able to locate, sample and test for HPAI in the field under extreme conditions," said Hoggard.

"The benefit of this is that samples don't need to be sent to a laboratory for testing, a process which can take weeks from remote locations like Antarctica. Instead, a confirmed result for HPAI H5N1 can be obtained within 48 hours of taking the sample."

**Level 3: Future Proofing Strategy - Biological Strategy Worksheet.**

1. What sort of agribusiness(es) are under threat?
2. State the future proofing influences impacting these agribusinesses.
3. Using the biological influence, explain two strategies the business has used to mitigate that influence?
4. How have these strategies ensured the businesses long-term viability?
5. What are the future needs of the businesses?
6. Can you provide two new strategies that would mitigate this biological influence? Explain each one.
7. Using the new strategies, explain which of these strategies would best meet the businesses future needs and explain how it impacts the long-term viability of the business?

**Answers**

1. What sort of agribusiness(es) are under threat?

Poultry industry in New Zealand, specifically egg producers and free-range poultry farms.

1. State the future proofing influences impacting these agribusinesses.

* Biological influence:
  + Movement of avian flu through wild bird populations, especially from Antarctica.
  + The threat of avian flu entering New Zealand via migratory birds.
  + Border controls and farm-level biosecurity protocols.
* Economic influence:
  + Depopulation (culling) of birds, leading to loss of livestock and production.
  + Cost of testing, containment, and eradication efforts.
  + Market disruptions, such as reduced egg or poultry supply.

1. Using the biological influence, explain two strategies the business has used to mitigate that

influence?

* Farm biosecurity lockdowns: Egg producers are encouraged to create "mini lockdowns" to prevent wild birds from contacting poultry, such as securing barns to stop wild birds from entering.
* Portable field-testing labs: Use of portable laboratories for rapid detection of avian flu in remote areas, enabling faster response and containment.

1. How have these strategies ensured the businesses long-term viability?

* By stopping wild birds from infecting poultry, the business reduces the risk of outbreaks that could devastate poultry stocks.
* Early and quick identification of avian flu cases helps to implement control measures promptly, limiting spread and economic loss, thus protecting the industry's sustainability.

1. What are the future needs of the businesses?

* Enhanced biosecurity measures, especially for free-range farms.
* More effective early warning and rapid response systems to contain outbreaks.
* Improved infrastructure to prevent contact between wild birds and poultry.
* Ongoing research and technology to monitor and manage avian flu risks.

1. Can you provide two new strategies that would mitigate this biological influence? Explain each one.

Examples are:

* Develop and implement vaccination for poultry against avian flu to reduce vulnerability.
* Implement environmental controls to manage and limit wild bird access near poultry farms, such as creating buffer zones or deterrents.
* Enhanced surveillance and monitoring programs:
* Increase routine testing of wild birds and domestic flocks to detect any early signs of infection before it spreads widely.
* Use technology such as drones or sensors to monitor wild bird activity near farms.
* Public awareness and training:
* Educate farmers, workers and local communities on avian flu signs, biosecurity protocols, and rapid reporting procedures.
* Genetic research and breeding:
* Research and develop poultry breeds that are more resistant or less susceptible to avian flu.
* Implement selective breeding programs to increase flock resilience.
* Collaboration with international bodies:
* Work with global biosecurity and animal health organisations to share information, improve forecasting, and coordinate responses.
* Adopt best practices from countries that have managed avian flu effectively.

1. Using the new strategies, explain which of these strategies would best meet the business’s future needs?

Example.

* Vaccination program would best meet future needs as it directly reduces the risk of infection within poultry regardless of wild bird contact. It provides a biological barrier that complements physical biosecurity measures and rapid testing. Wild bird habitat management helps but might be less reliable due to migratory patterns and environmental constraints, making vaccination a more comprehensive and proactive solution.