

Project Summary

Deterrence of wild waterfowl from poultry production areas: a critical review of current techniques and literature

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Introduction

Avian Influenza (AI) is a constant threat to the Australian poultry industry and it is widely known that waterfowl can transmit low pathogenic AI to poultry, both directly and indirectly.

As many Australian poultry farms have open water storages and additional habitats that attract various waterfowl species, this review looks objectively at the advantages and disadvantages of various avian deterrent and control strategies for target species in target areas, day and night.

This project will aid the Australian Chicken Meat industry by identifying appropriate waterfowl deterrents and strategies for reducing the risk of AI transmission to commercial flocks, and assess which species pose the most risk in regards to ecology and behaviour, distribution and likelihood of carrying AI viruses.

Key findings

- There is currently a severe lack of information available regarding how to deter waterfowl for the purpose of disease management.
- In general, netting range areas and covering water storages is cost prohibitive.
- Habitat modifications, along with passive and active deterrence measures, may be more suitable on poultry farms to reduce the AI risk posed by wild birds.
- Cost-benefit analysis is important in assessing waterfowl control measures and priority should be given to ensuring the property is unattractive to birds by minimising access to open water, food and roosts.

- A combination of appropriate visual and acoustic deterrents, which are activated when waterfowl attempt to land in 'no-go' zones, is suggested as the ideal strategy, as this targets the unwanted behaviour, minimises use of the deterrents, and helps to prevent habituation.

Implications and recommendations

The use of effective, low-maintenance waterfowl deterrent strategies, along with enforcing stricter biosecurity measures regarding waterfowl deterrence for meat chicken farms, may reduce the risk of AI transmission.

Development of an industry-agreed risk assessment methodology, which evaluates and identifies measures taken to deter waterbirds under different production systems, is required.

Based on this review, a more detailed comparative evaluation of the identified key deterrence strategies is warranted, including field trials to assess each strategy.

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