



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

Let's Talk Poultry Webinar Series

Mitigating Bird Flu With Better Biosecurity What Can We Do?

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What is Avian Influenza?



- Avian influenza is a highly contagious and often fatal viral disease of poultry and wild birds
- Impact on poultry depends on the subtype involved
- Wild birds – natural reservoir & main source shedding the virus in respiratory secretions & faeces
- Certain subtypes can affect humans and mammals usually after close contact with infected birds

Classification of Avian Influenza (AI)



Classification is made based on **pathogenicity** as well as **notifiability**

Pathogenicity:

AI is divided in two groups

Highly Pathogenic Avian Influenza (HPAI): spreads rapidly causing serious disease with high mortality (up to 100% within 48 hours) in most poultry species (except domestic waterfowl)

Low Pathogenic Avian Influenza (LPAI): causing generally a mild disease, may easily go undetected

Notifiability:

In Ireland, all types of Avian Influenza, regardless of subtype or pathogenicity, are notifiable to DAFM (SI 130/2016)

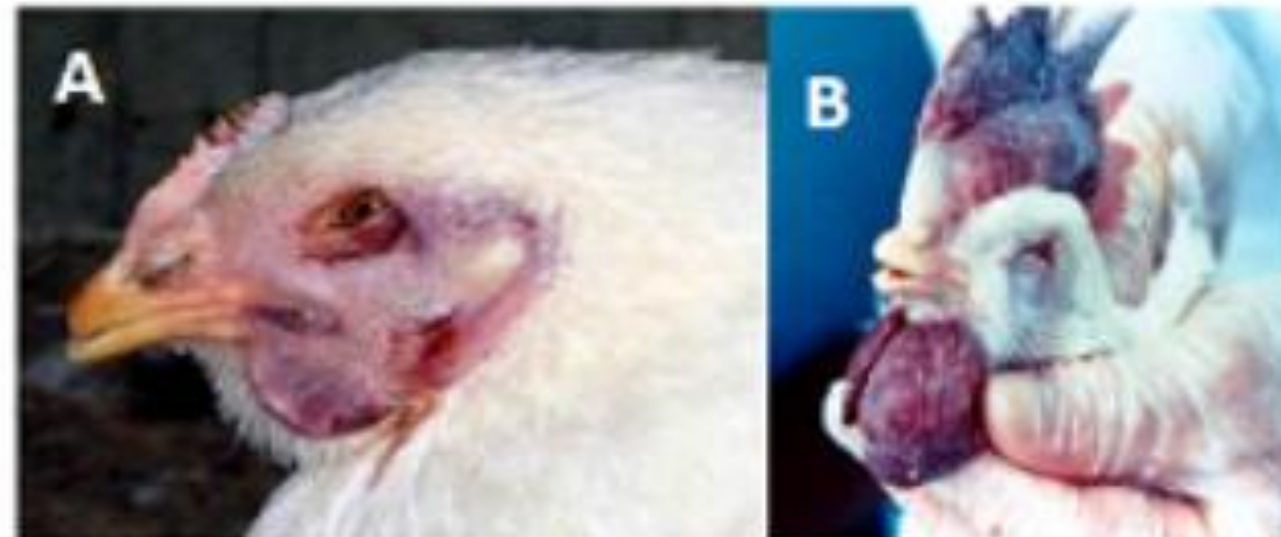
For the purposes of OIE notification and for compliance with the control and eradication requirements under EU AI Directive 2005/94, Avian Influenza is defined in EU law and in the OIE Terrestrial code as **Avian Influenza viruses of the H5 or H7 subtypes, whether they are low pathogenic or highly pathogenic.** It also includes non H5 or H7 subtypes, provided they are classified as highly pathogenic following a specific testing regime set out in the legislation.

Clinical Signs of Avian Influenza



https://www.agriculture.gov.ie/avian_influenza/clinicalsignsandleaflets/

How to recognise avian influenza



A & B: Swollen head, and discharges; blue discoloration of wattle and comb



C: Ruffled feathers. D: Twisting of head and neck



E & F: Blue discoloration of shanks

Clinical signs of avian influenza

Symptoms may include any of the following:

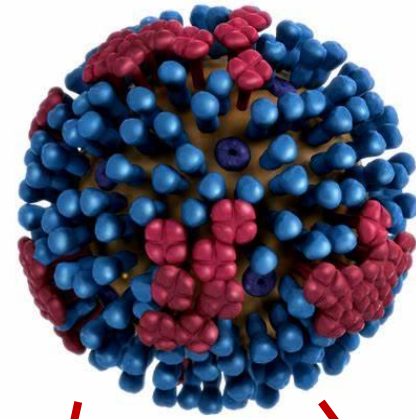
Highly pathogenic avian influenza (HPAI)

- Depression
- Loss of appetite and excessive thirst
- Cessation of egg laying
- Respiratory signs (coughing, sneezing)
- Ruffled feathers
- Nervous signs (drooping wings, dragging legs, twisting of the head and neck, circling, complete paralysis)
- Swelling and blue discoloration of combs and wattles
- Blue discoloration of shanks
- Diarrhoea
- Sudden death
- Mortality rates up to 100%

Low pathogenic avian influenza (LPAI)

- Mild respiratory disease
- Depression
- Drop in egg production

Risk Pathways of Avian Influenza to poultry and wild birds in Ireland

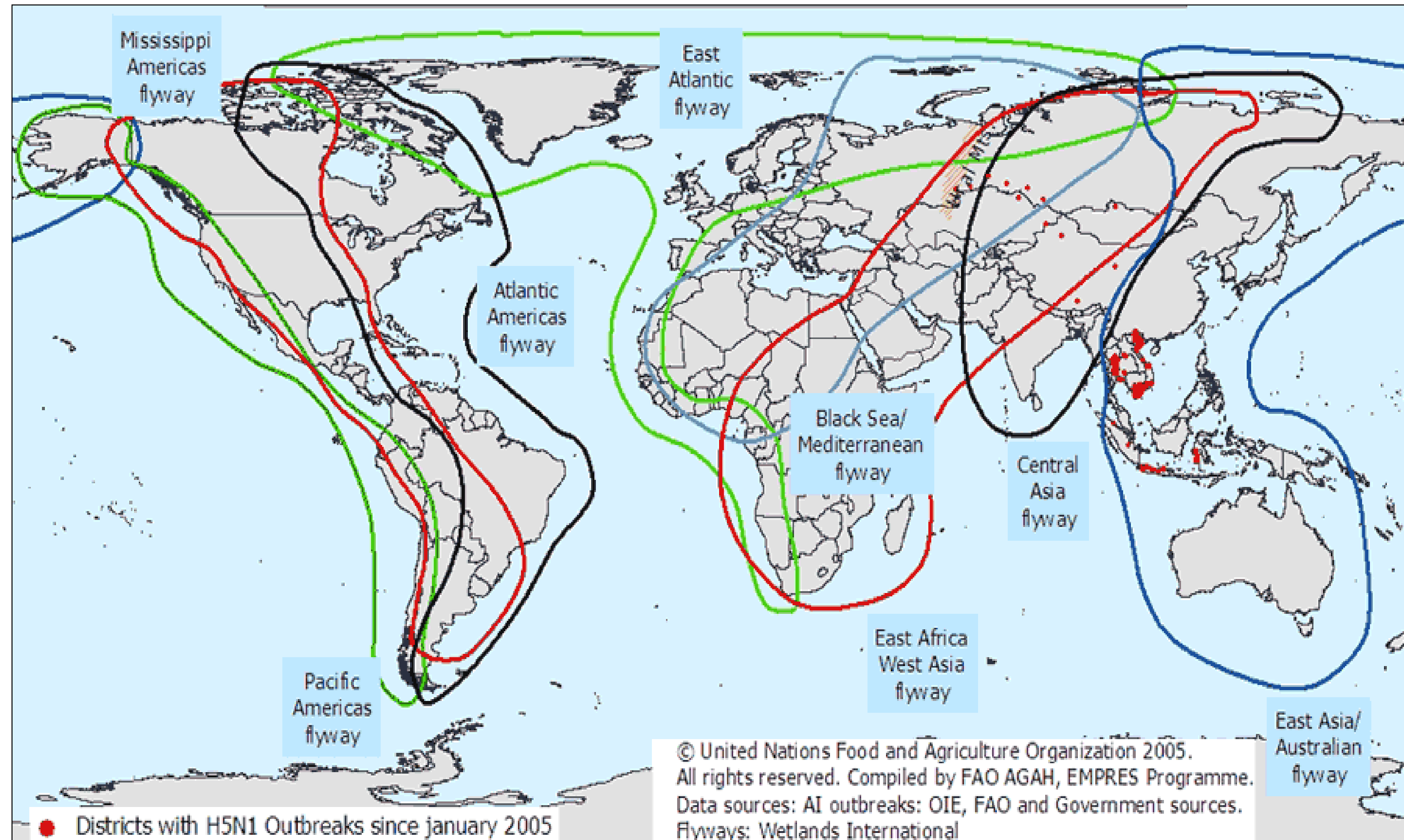


Migratory wild bird contact
with environment and
resident wild birds & poultry –
higher risk

Live Poultry & hatching
eggs imports – **lower
risk** (*regulatory
controls*)

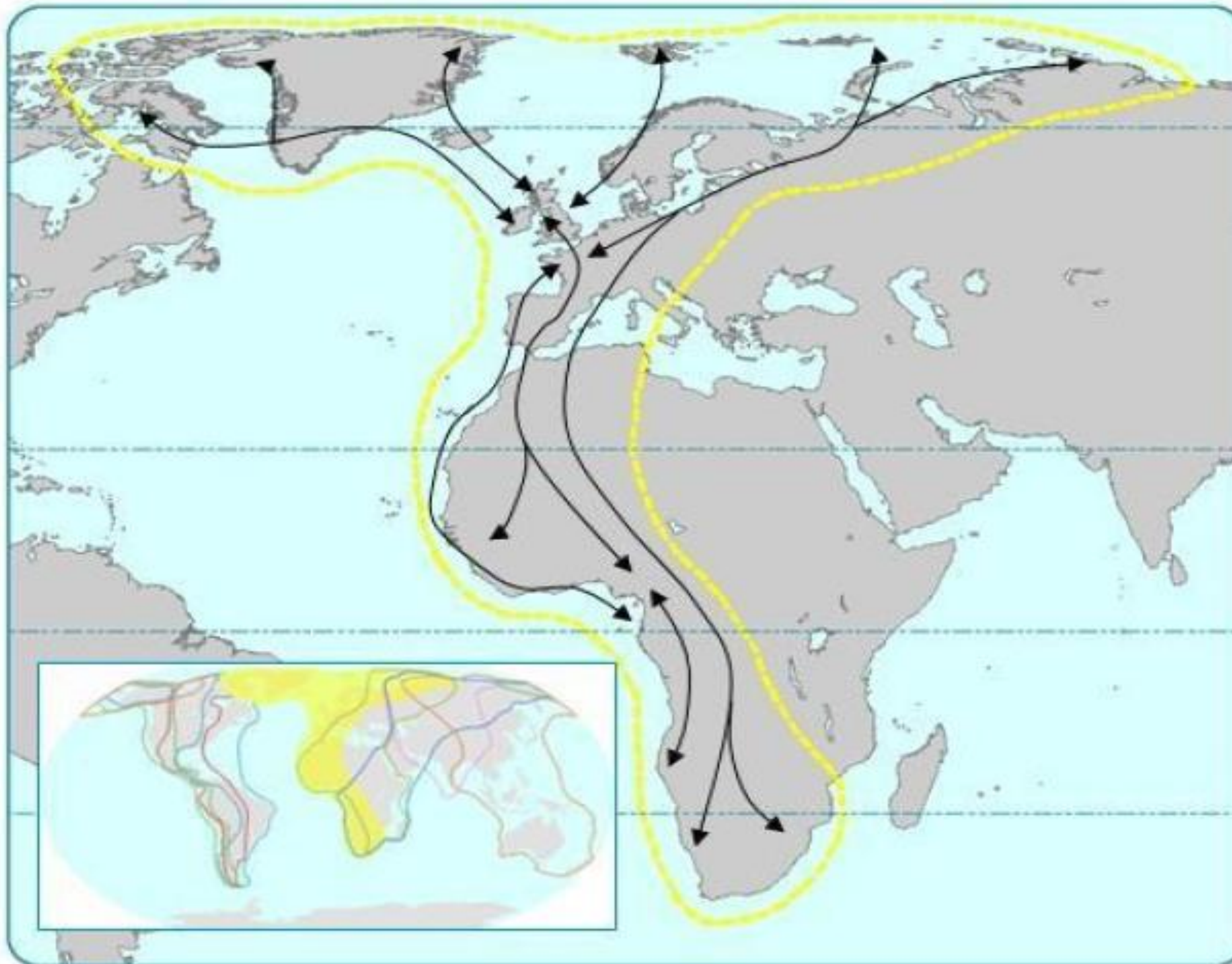
Contaminated feed, bedding,
international transport vehicles or
equipment imports – **lower risk**
(*regulatory controls*)

Wild Bird Migratory Pathways



Many flyways
congregate in
Russia which can
lead to different
subtypes
spreading to new
flyways

East Atlantic Flyway



- Millions of migratory birds
- Breeding grounds in the Arctic, Greenland, Iceland, Russia
- Wintering sites in Western Europe and West Africa
- Some birds migrate more than 10,000km with stopover sites along the way
- Colder weather in Europe leads to birds flying further west in greater numbers in winter

Risk of AI Introduction to Ireland Through Migratory Birds



- High numbers of migratory waterfowl
- Congregate on wetland sites- often large mixed-species flocks
- Infected migrant waterfowl can infect resident birds (and other migratory birds) and the environment.

Our national flock at constant risk for AI introduction

**Whooper
swan**



Black-headed gull



Greylag goose



H6N1 Outbreak in Northern Ireland 2020



A total of 15 outbreaks occurred in Northern Ireland
Affected flocks include table egg layers and broiler breeders & one grandparent flock.
The last confirmed outbreak was reported on the 22/03/2020.
Areas affected include Fermanagh, Tyrone, Armagh and Down.
Clinical presentation as for Ireland.
All of the confirmed flocks were depopulated.

H6N1 Outbreak in Ireland 2020



- All in County Monaghan
- The confirmed flocks include 10 table egg layer flocks (2 commercial, 8 free range) and 2 fattening turkey flocks.
- One additional flock in the Monaghan area is currently being investigated as suspect for avian influenza H6N1.

Presenting clinical signs of current H6N1 outbreak:

- Significant drop in egg production (where applicable)
- Reduced feed intake
- Mild depression
- Green diarrhoea (one case)
- Slight increase in mortality.

H6N1 Outbreak in Ireland 2020



• All flocks served with a Compliance Notice (Animal Health and Welfare Act, 2013), requiring the adoption of certain biosecurity measures:

- Movement of eggs
- Movement of poultry and carcasses
- Movement of livestock, vehicles, equipment, machinery
- Disinfection
- Control & Containment Plan (drawn up by flock owner and PVP):
 - Depopulation plan
 - Litter
 - Manure, used bedding, slurry
 - Lime treatment
 - Ensiling
 - Conditions for transport and location of spreading

DAFM's Communication Campaign for AI



https://www.agriculture.gov.ie/avian_influenza/

- Animal Health & Welfare
- Disease Control
- Latest Information on Avian Influenza
 - Biosecurity Advice
 - Clinical Signs and Leaflets
 - Human Health, Travel & Advice for the Public
 - Poultry Registration
 - Poultry Industry Information & Surveillance
 - Wild Birds & Hunter Guidelines
 - Imports & Exports
 - Legislation & Contingency Planning
 - Press releases
 - Useful Websites
 - Shows, Exhibitions & Races

Latest Information on Avian Influenza

2020

- [Avian Influenza Update No. 8 of 2020](#) (pdf 503Kb)
- [Avian Influenza Update No. 7 of 2020](#) (pdf 411Kb)
- [Avian Influenza Update No 6 of 2020](#) (pdf 319Kb)
- [Avian Influenza update No. 5 of 2020](#) (pdf 350Kb)
- [Avian Influenza Update No 4 of 2020](#) (pdf 159Kb)
- [Avian Influenza Update No 3 of 2020- HPAI in Europe](#) (pdf 269Kb)
- [Avian Influenza Update No 2 of 2020- HPAI in Europe](#) (pdf 391Kb)
- [AI Table summarising outbreaks in Europe March 2020](#) (pdf 148Kb)
- [Trader Notice No. 01/2020](#) (doc 115Kb)



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National Disease Control Centre

Avian Influenza Alert Number 08 of 2020

DUCKS AND GEESE

AVIAN INFLUENZA BIOSECURITY ADVICE

Q. Why is good biosecurity important?
To protect your ducks and geese from avian influenza you need to prevent them from coming into contact with potentially infected wild birds, their faeces and other secretions. The three principles of good biosecurity include: 1) segregation of wild and domestic birds, 2) good hygiene practices, and 3) frequent cleaning and disinfection.

Q. What are the risk factors for avian influenza specifically associated with duck farming practices?
• Water for ducks and geese could potentially be contaminated by wild birds.
• Duck and goose housing may not be wild bird proof.
• Straw used for bedding may be contaminated by wild birds prior to use if not properly stored. It may also attract wild birds and rodents.

Q. What are the most important biosecurity measures to prevent avian influenza?
Comply with Avian Influenza (Precautionary Confinement of Birds) Regulations 2016 by housing your birds and taking key biosecurity measures, including:
1. Prevent wild bird contact with your birds, e.g. by use of netting and fences.
2. Only feed and water your birds under cover, and prevent wild bird access to your feed, water and bedding.
3. Provide clean drinking water (not water that could have been contaminated by wild birds e.g. not lake or pond water), and prevent access to any outdoor water.
4. Use designated clothing and footwear for attending your birds.
5. Wash and disinfect your hands before and after looking after your birds, and place disinfectant foot dips at entrances to bird areas.
6. Keep different bird species separated on particular ducks and geese from other poultry species.
7. Prevent contact of ducks and geese with droppings from flying wild birds, e.g. make sure any temporary housing is covered with canvas or tarpaulin.
8. Keep the environment clean and unattractive to wild birds, e.g. keep grass cut, drain any unnecessary ground-water, and use scarecrows.
9. Check your ducks and geese regularly for signs of illness.
10. Prevent rodents, pets, unnecessary personnel, and vehicles from accessing your bird living area.
11. Only buy ducks and geese from a known reputable source - isolate any newly introduced birds for two weeks if possible, and look after your own birds before the new birds.
12. Clean and disinfect any equipment before and after use.
13. Provide only commercial feed (it is illegal to feed farmed animal species with food waste) and clean up any food spills.

Avian Influenza (Precautionary Confinement of Birds) Regulations 2016
Further information on avian influenza can be found at: http://www.agriculture.gov.ie/avian_influenza/

Avian Influenza Hotline: 076 106 4403
Outside of Office hours: 1850 200 456

TURKEYS

AVIAN INFLUENZA BIOSECURITY ADVICE

Q. Why is good biosecurity important?
To protect your turkeys from avian influenza you need to prevent them from coming into contact with potentially infected wild birds, their faeces and other secretions. The three principles of good biosecurity include: 1) segregation of wild and domestic birds, 2) good hygiene practices, and 3) disinfection.

Q. What are the risk factors for avian influenza specifically associated with turkey farming practices?
• Turkeys require frequent clean straw bedding. Straw used for bedding may be contaminated by wild birds prior to use if not properly stored. It may also attract wild birds and rodents.
• Turkey housing may not be wild bird proof.

Q. What are the most important biosecurity measures to prevent avian influenza?
Comply with Avian Influenza (Precautionary Confinement of Birds) Regulations 2016 by housing your turkeys and taking key biosecurity measures, including:
1. Prevent wild bird contact with your birds, e.g. use of netting and fences.
2. Only feed and water your turkeys under cover, and prevent wild bird access to your feed, water and bedding.
3. Provide clean drinking water (not water that could have been contaminated by wild birds e.g. not lake or pond water), and prevent access to any outdoor water.
4. Use designated clothing and footwear for attending and looking after your birds.
5. Wash and disinfect your hands before and after looking after your birds, and place disinfectant foot dips at entrances to turkey areas.
6. Separate turkeys from other poultry species.
7. Prevent contact of turkeys with droppings from flying wild birds e.g. make sure any temporary housing is covered with canvas or tarpaulin.
8. Keep the environment clean and unattractive to wild birds, e.g. keep grass cut, drain any unnecessary ground-water, and use scarecrows.
9. Check your turkeys regularly for signs of illness.
10. Prevent rodents, pets, unnecessary personnel, and vehicles from accessing your turkey living area.
11. Only buy turkeys from a known reputable source - isolate any newly introduced turkeys for two weeks if possible, and look after your own birds before the new birds.
12. Clean and disinfect any equipment before and after use.
13. Provide only commercial feed (it is illegal to feed farmed animal species with food waste) and clean up any food spills.

Avian Influenza (Precautionary Confinement of Birds) Regulations 2016
Further information on avian influenza can be found at: http://www.agriculture.gov.ie/avian_influenza/



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Department of Agriculture,
Food and the Marine

BIOSECURITY ADVICE FOR OWNERS OF LIVE POULTRY FOR THE
PREVENTION OF AVIAN INFLUENZA

Produced by the National Disease Control Centre

Version 1



THE DEPARTMENT OF
AGRICULTURE, FISHERIES & FOOD
AN ROINN TALMHAÍOCHTA, IASCAIGH AGUS BIA

Biosecurity Information for Registered Poultry Flock Owners



THE DEPARTMENT OF
AGRICULTURE, FISHERIES & FOOD
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Information on Avian Influenza Control Measures



BACKYARD POULTRY

AVIAN INFLUENZA BIOSECURITY ADVICE

Q. Why is good biosecurity important?
To protect your poultry from avian influenza you need to prevent your birds from coming into contact with potentially infected wild birds, their faeces and other secretions. Good biosecurity measures will reduce the risk of introduction of avian influenza.

Disease control in small backyard flocks across the country is not only important to those small flocks, but also to protect the high health status of the larger national flock. In the event of an outbreak of avian influenza in a backyard flock, potentially damaging disease movement restrictions will apply for all poultry in the surrounding area, and the ability of commercial companies to export poultry or poultry products may be affected.

If you work on a commercial poultry farm, do not keep poultry at home, as you could spread disease from one flock to another.

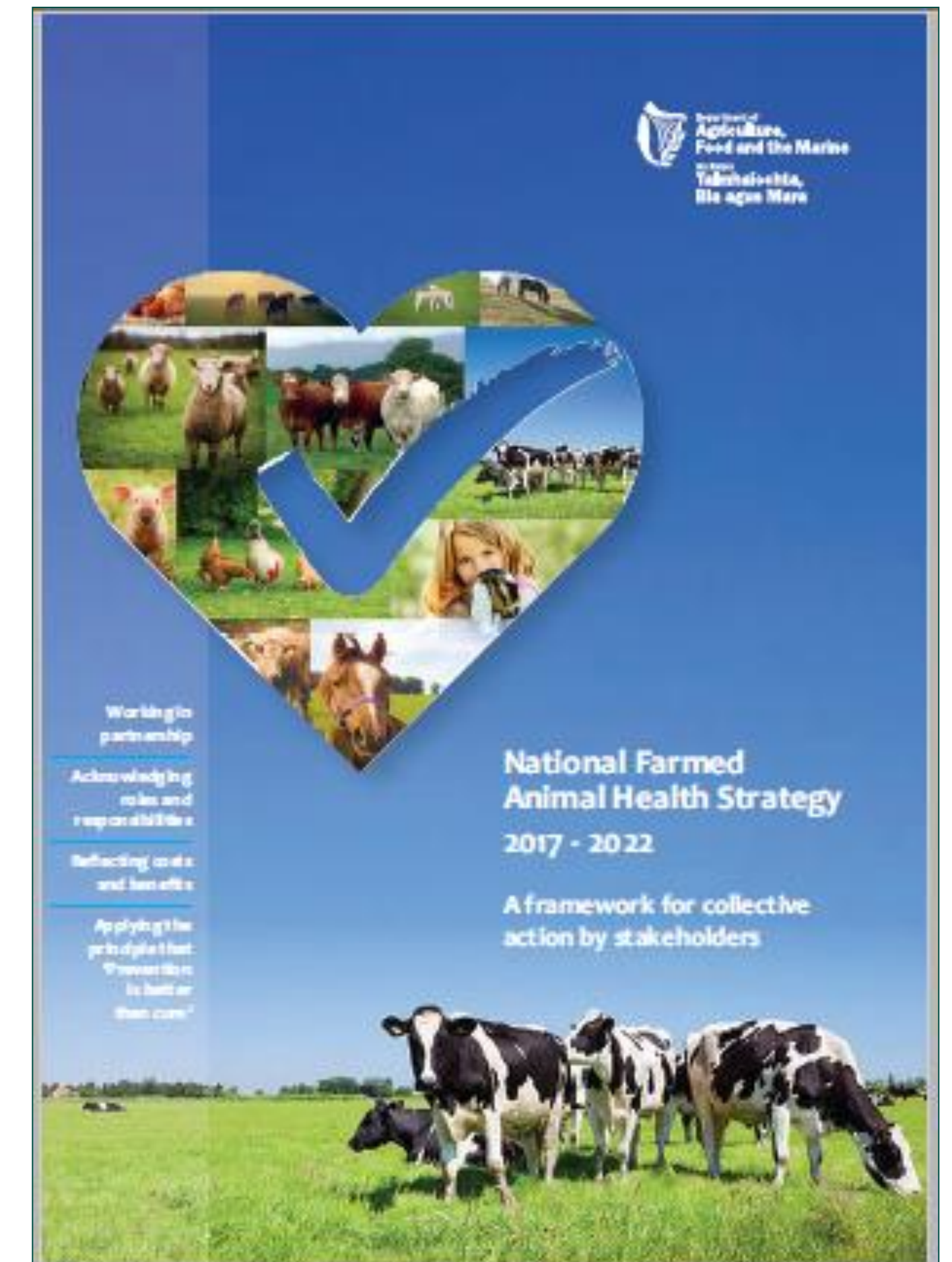
Q. What are the most important biosecurity measures you can take to prevent avian influenza?
Comply with the Avian Influenza (Precautionary Confinement of Birds) Regulations 2016 by housing your birds and taking key biosecurity measures, including:
1. Prevent direct wild bird contact with poultry, e.g. use of netting.
2. Prevent wild bird contact with poultry feed and bedding.
3. Provide potable drinking water (not water that could have been contaminated by wild birds e.g. not lake or pond water).
4. Use designated clothing and footwear for attending and looking after your birds.
5. Wash and disinfect your hands before and after looking after your birds.
6. Keep different poultry species separated (in particular ducks and geese should be separated from other poultry species).
7. Prevent direct contact of poultry with droppings from flying wild birds e.g. cover housing using canvas or tarpaulin.
8. Keep the environment clean and unattractive to wild birds, e.g. keep grass cut, use scarecrows.
9. Prevent rodents, pets and unnecessary personnel from having contact with poultry.
10. Check your birds regularly for signs of illness.
11. Only buy birds from a known reputable source - isolate any newly introduced poultry for 2 weeks if possible, and attend to your own birds before the new birds.
12. Clean and disinfect any equipment before use.
13. Provide only commercial feed (it is illegal to feed farmed animal species with food waste) and clean up any food spills.

Avian Influenza (Precautionary Confinement of Birds) Regulations 2016
Further information on avian influenza can be found at: http://www.agriculture.gov.ie/avian_influenza/

Why Focus on Biosecurity?



- **National Farmed Animal Health Strategy (NFAHS)**
'Prevention is better than Cure'.
- *“change the focus from one of **post-event management** and treatment of disease, to one that **promotes animal health.**”*



Why Focus on Biosecurity?



European
Commission



(Ref 1)

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE
EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS

ACTION PLAN

for the implementation of the EU Animal Health Strategy



Key output

REGULATIONS

REGULATION (EU) 2016/429 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 9 March 2016

on transmissible animal diseases and amending and repealing certain acts in the area of animal
health ('Animal Health Law')

Overall, the single, comprehensive new animal health law will support the EU livestock sector in its quest towards competitiveness and safe and smooth EU market of animals and of their products, leading to growth and jobs in this important sector:

- The huge number of legal acts are streamlined into a single law
- Simpler and clearer rules enable authorities and those having to follow the rules to focus on **key priorities: preventing and eradicating disease**
- Responsibilities are clarified for farmers, vets and others dealing with animals
- The new rules allow **greater use of new technologies for animal health activities** - surveillance of pathogens, electronic identification and registration of animals
- Better early detection & control of animal diseases, **including emerging diseases linked to climate change**, will help to reduce the occurrence and effects of animal epidemics
- There will be more flexibility to adjust rules to local circumstances, and to **emerging issues such as climate and social change**
- It sets out a better legal basis for **monitoring animal pathogens resistant to antimicrobial agents** supplementing existing rules and two other proposals currently being negotiated in the European Parliament and Council, on veterinary medicines and on medicated feed

National Biosecurity Strategy

One of DAFM's Key Priorities for 2020



Objective:

Establish a framework for effective farm level Biosecurity in Ireland.

Process:

- DAFM Internal Working Group
- DAFM Internal Gap Analysis
- Stakeholder Survey
- Stakeholder Forum
- Stakeholder Consultation
- Publication (Q3 2020)

A stylized illustration of a harp, a traditional Irish musical instrument, rendered in a golden-brown color. The harp features a curved frame with intricate knotwork patterns, a series of vertical strings, and a soundboard decorated with circular motifs.



-Biosecurity measures included both **physical** and **management** measures (86%)

-Biosecurity involves both **internal** and **external** Biosecurity measures (81%).

-Effective Biosecurity should be practiced **at all times** (85%)

Farm-Level Biosecurity



2 Key Sets of Biosecurity Measures for Farmers:

1. Measures taken to reduce the risk of infectious disease coming into your farm
(External Biosecurity).

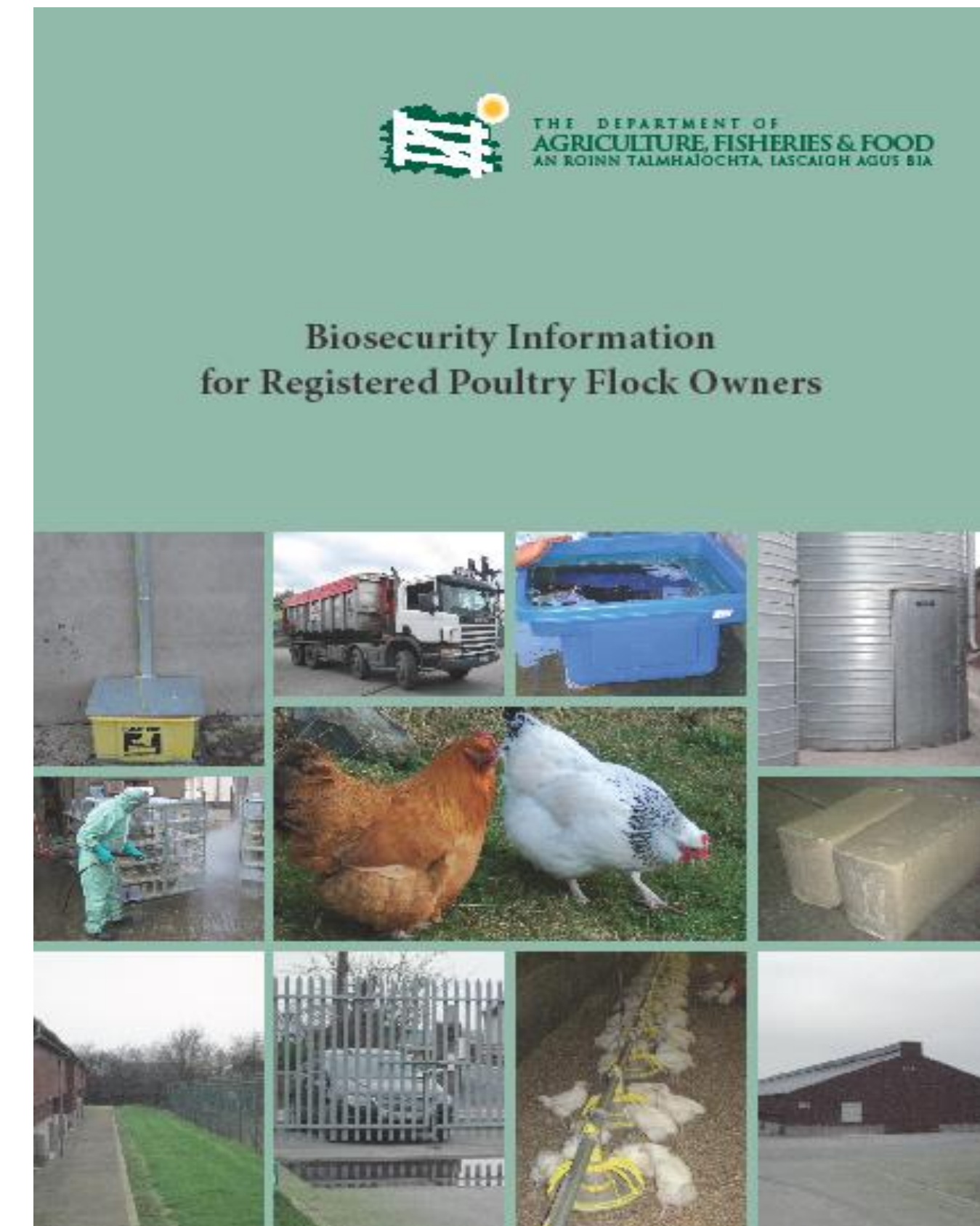
2. Measures taken to reduce spread of infectious diseases within your farm
(Internal Biosecurity).



Importance of Biosecurity for AI

The 200 yards around the poultry - most important in the epidemiology of AI

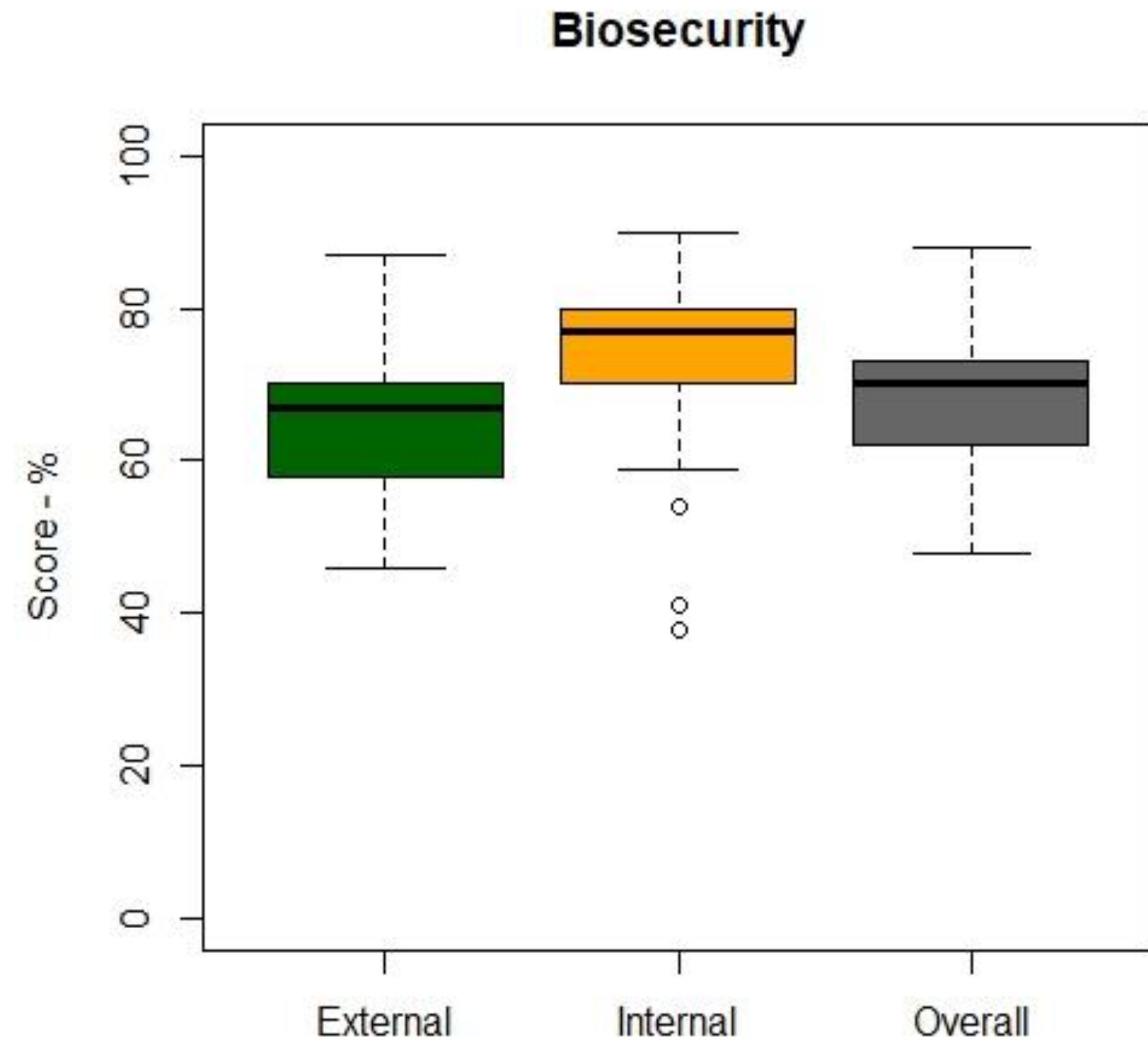
- Perimeter fence
- Clean perimeter area- no vegetation
- Footbaths
- Disposable outerwear, hand washing
- Restrict access- people/equipment/pets
- C&D of buildings & equipment
- Carcasses- sealed container



Preliminary Analysis by AHI



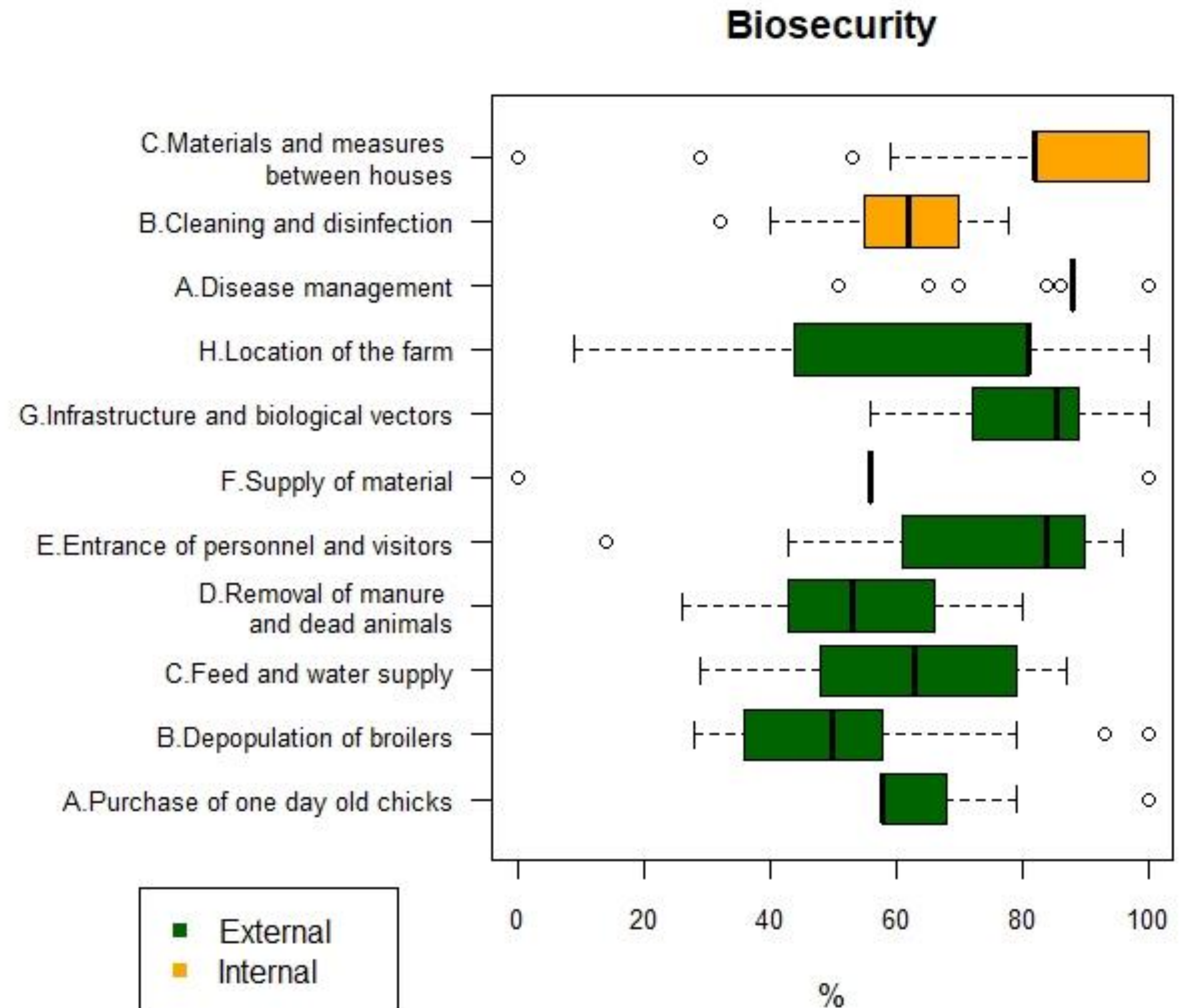
58 Broiler Farms-Overall Scores



Preliminary Analysis by AHI



58 Broiler Farms- Risk Area Scores



Targeted Advisory Service for Animal Health TASAH



Rural Development Plan 2014-2020

- The measure is co-funded by the Irish government and the EU
- €1 million annual allocation to 2020
- Animal Health Ireland (AHI) awarded tender in 2015

Current TASAH Programmes

- BVD TASAH Investigation-National BVD Eradication Programme
- JD TASAH Investigation- Irish Johne's Control Programme
- TASAH Dry Cow Consult- Cell Check Programme
- Biosecurity Risk Assessment for Pigs
- Tail Biting Risk Assessment for Pigs
- Biosecurity Risk Assessment for Poultry



How Poultry Biosecurity TASAH Works



- Under the service, veterinary practitioners are paid for up to three hours of advice per farm visit.
- Only private veterinary practitioners (PVPs) who have undertaken TASAH training in relation to the relevant disease/issue will be eligible to provide the service.
- For poultry, initial focus of TASAH is on **Biosecurity**, using the Biocheck.UGent Biosecurity Assessment Tool.

Biosecurity TASAH – Biocheck.UGent



What is Biocheck?

- Objective tool to measure biosecurity
 - Internal biosecurity
 - External biosecurity
- Risk assessment identifies areas of weakness
- Provides benchmarking and metrics
- **Measures how *effectively* you are implementing your chosen/agreed Biosecurity Protocol**

Benefits:

- No charge to farmers
- Free expert advice
- Informed decision making
- Demonstrates progress

Biosecurity Risk Assessments SHOULD NOT BE CARRIED OUT
during periods of HIGH DISEASE RISK!



ANIMAL HEALTH IRELAND

Contributing to a profitable and sustainable farming and agri-food sector through improved animal health



BVD HELPLINE: 071 9671928

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