

Disease Risk Management

Sally Gaynor

Senior Superintending Veterinary Inspector
NDCC & Border Inspection Posts Division

Poultry & Egg Conference, Monaghan, 9 Nov 2016



Department of
**Agriculture,
Food and the Marine**

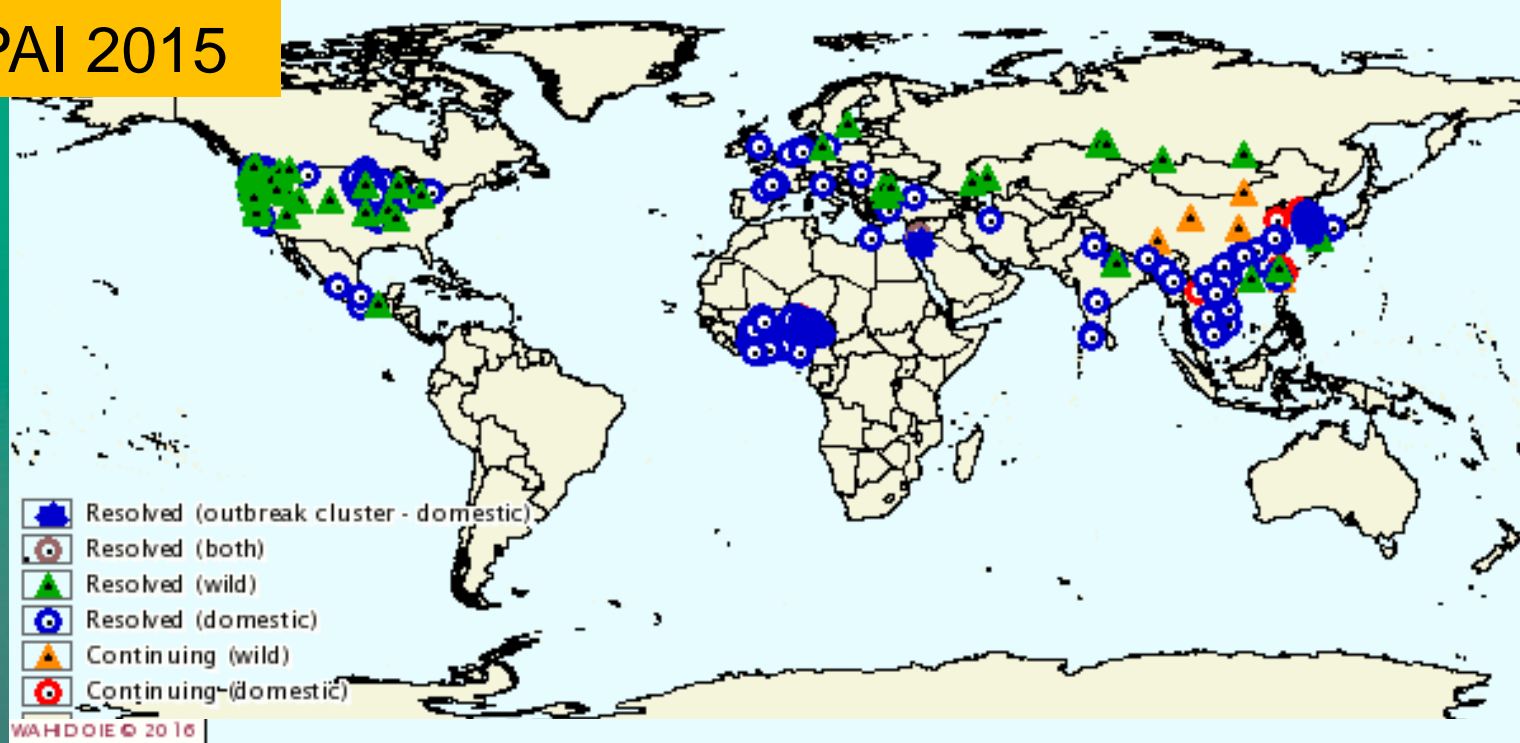
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www.agriculture.gov.ie

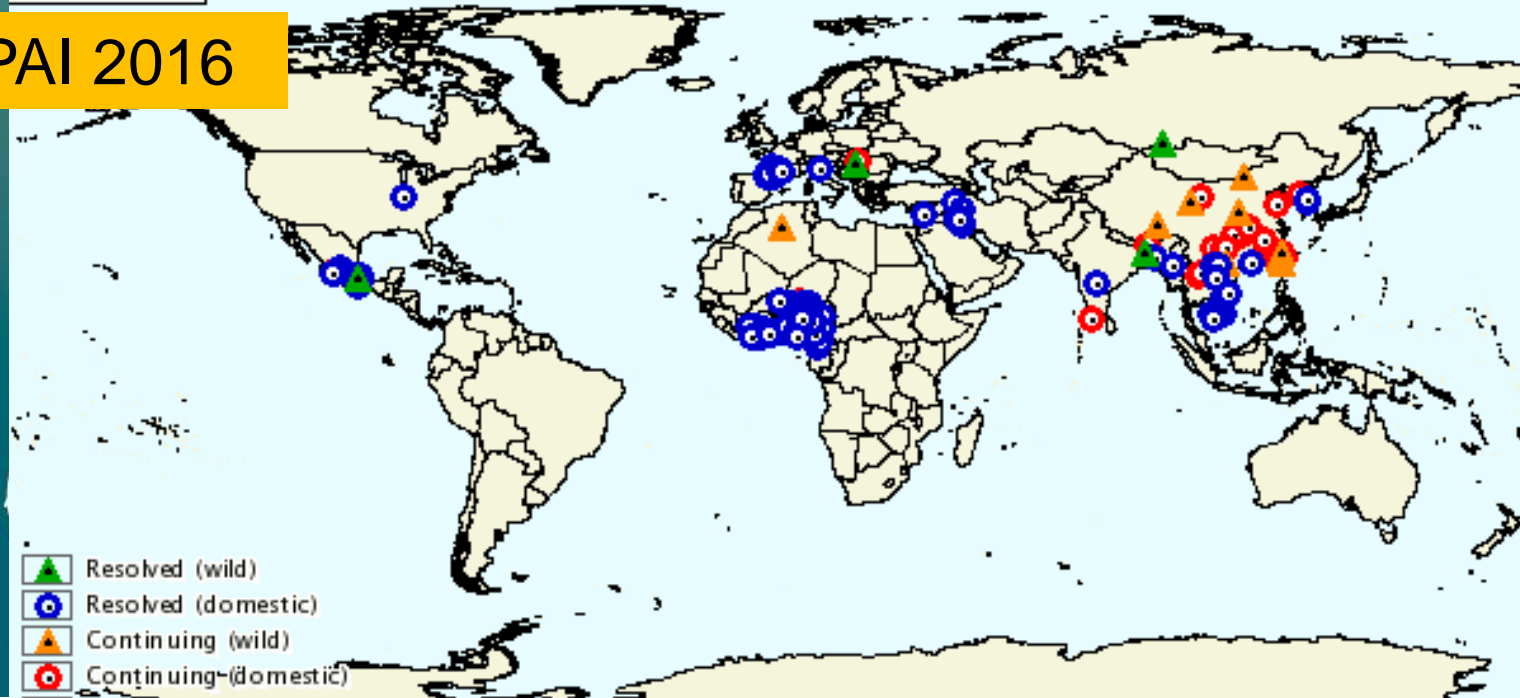
Outline

- Current disease situation
- Biosecurity
- Consequences of lack of biosecurity
- Reporting disease
- DAFM activities

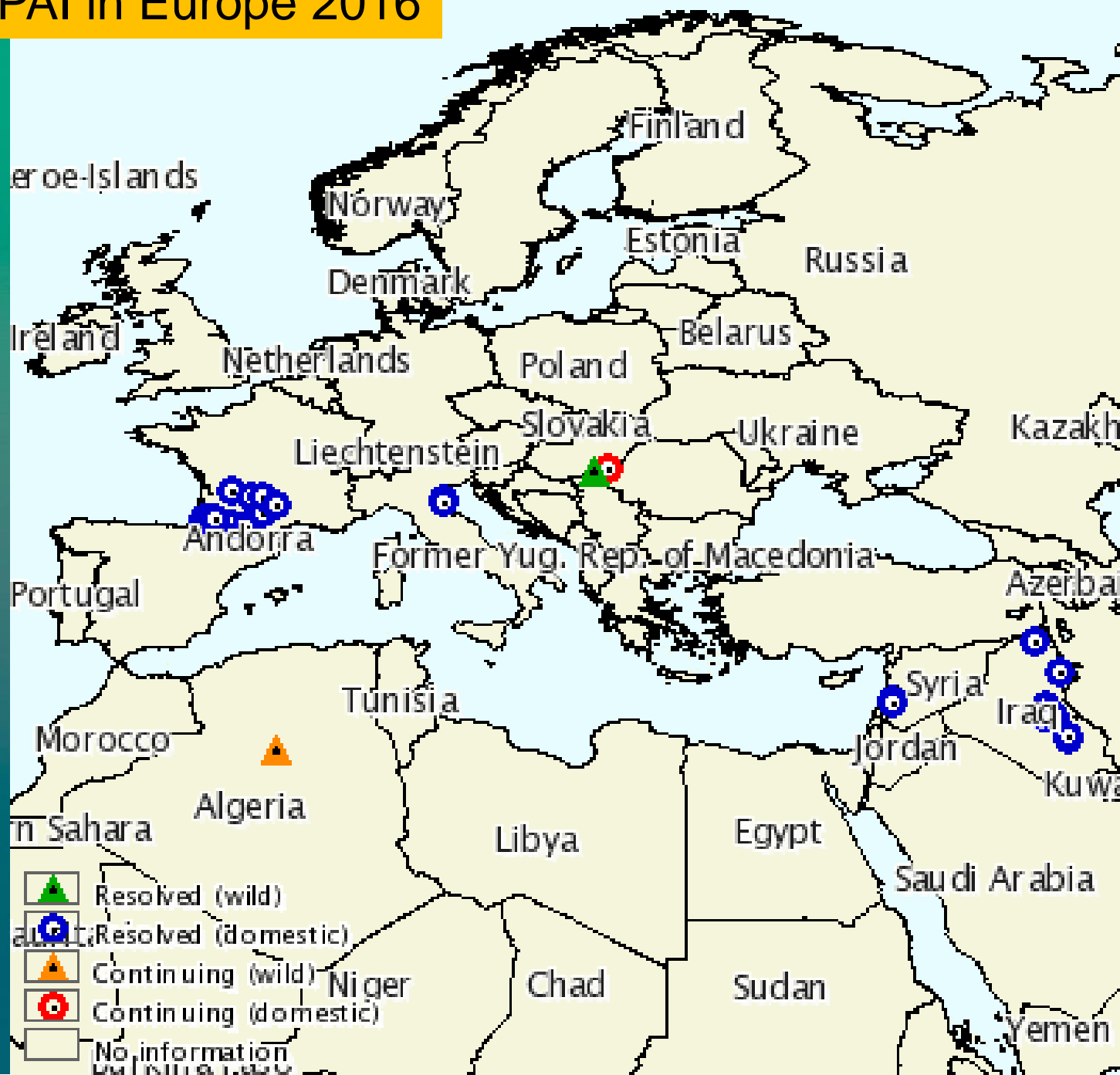
HPAI 2015



HPAI 2016



HPAI in Europe 2016



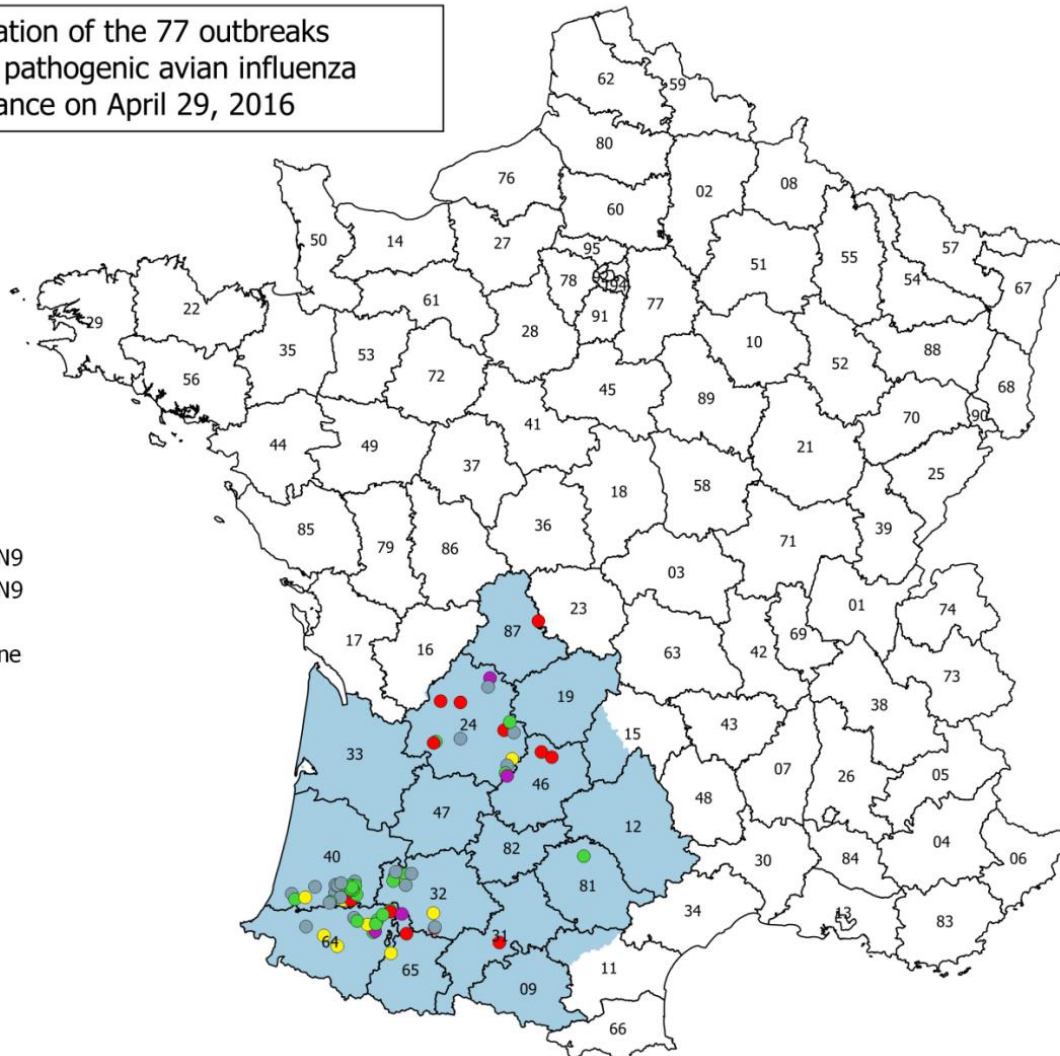
HPAI H5 in France 2016



Localisation of the 77 outbreaks
of Highly pathogenic avian influenza
in France on April 29, 2016

HPAI outbreaks

- H5N1
- H5N2
- H5H9
- H5N2 and H5N9
- H5N1 and H5N9
- H5HP
- Restriction zone



HPAI H7N7 in Italy May 2016



HPAI H5N8 in 2016

Mute swan
Lake Fehér-tó, Szeged, Hungary
Black Sea/Mediterranean Flyway
19 October 2016

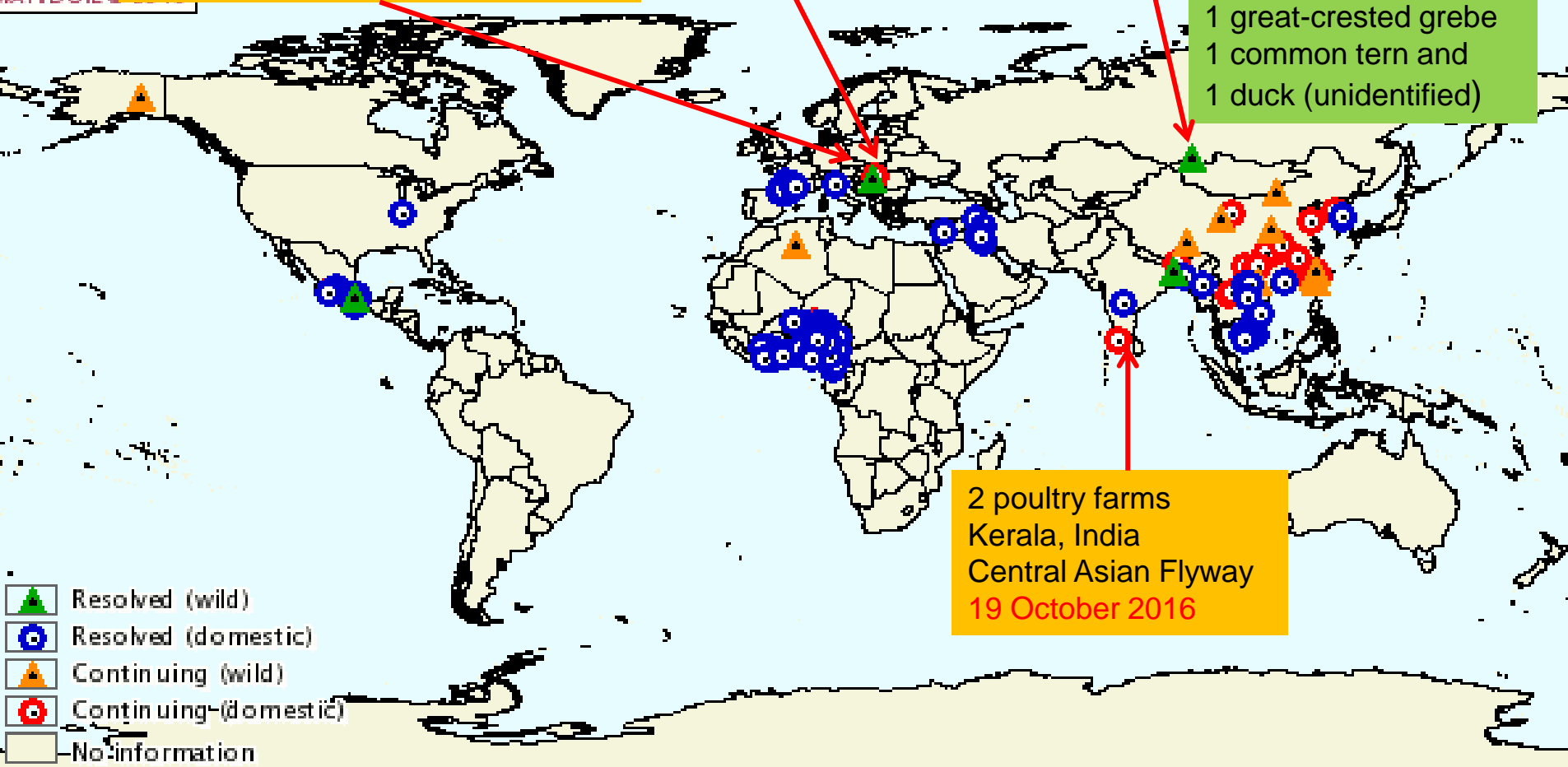
Ubsu-Nur, Tyva Republic, Russian Federation
Central Asian Flyway
early June 2016

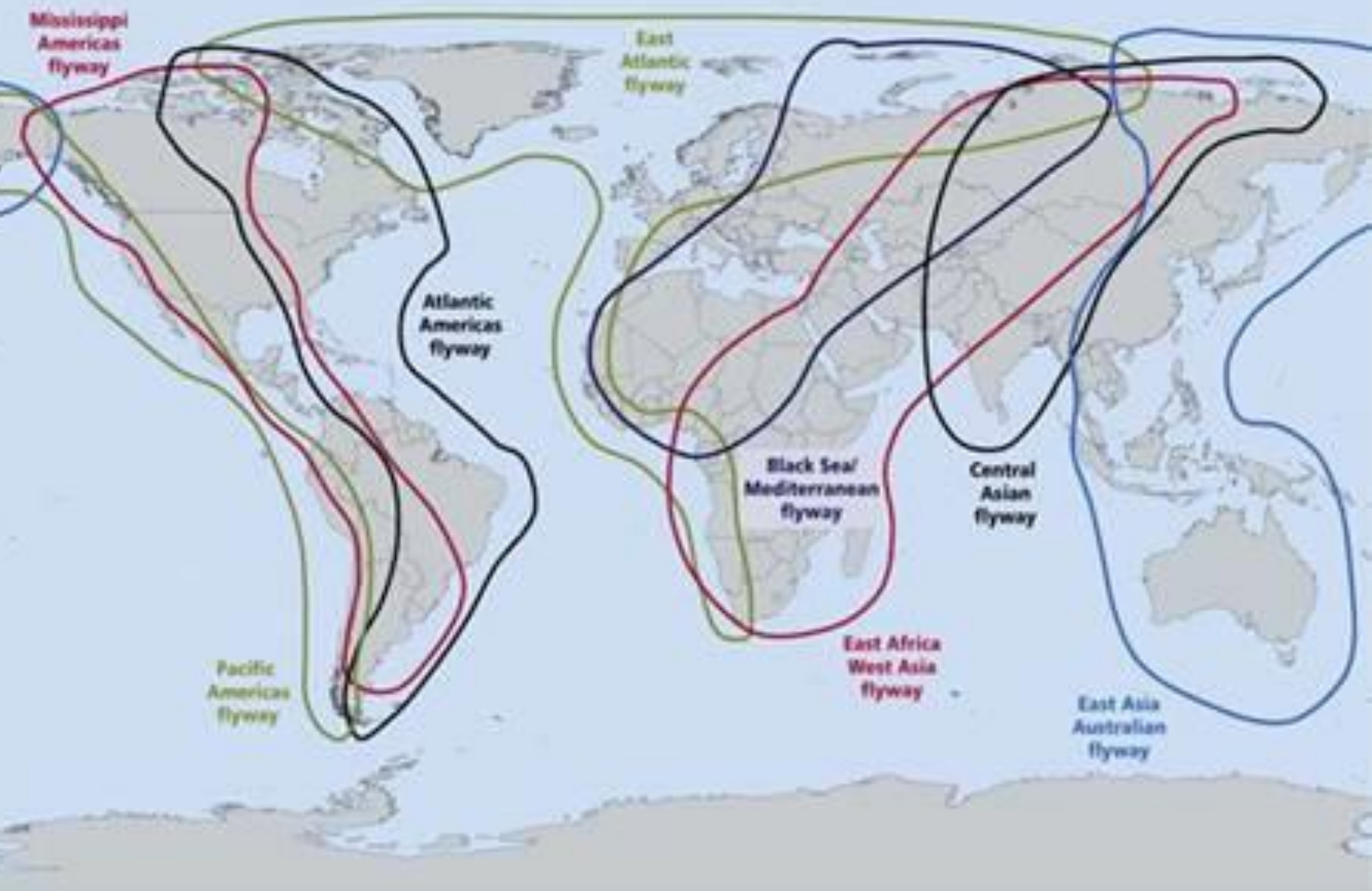
Turkey farm
Tótkomlós, Bekes County, Hungary
Black Sea/Mediterranean Flyway
28 October 2016

6 black-headed gulls
4 grey herons
4 great cormorants
1 great-crested grebe
1 common tern and
1 duck (unidentified)

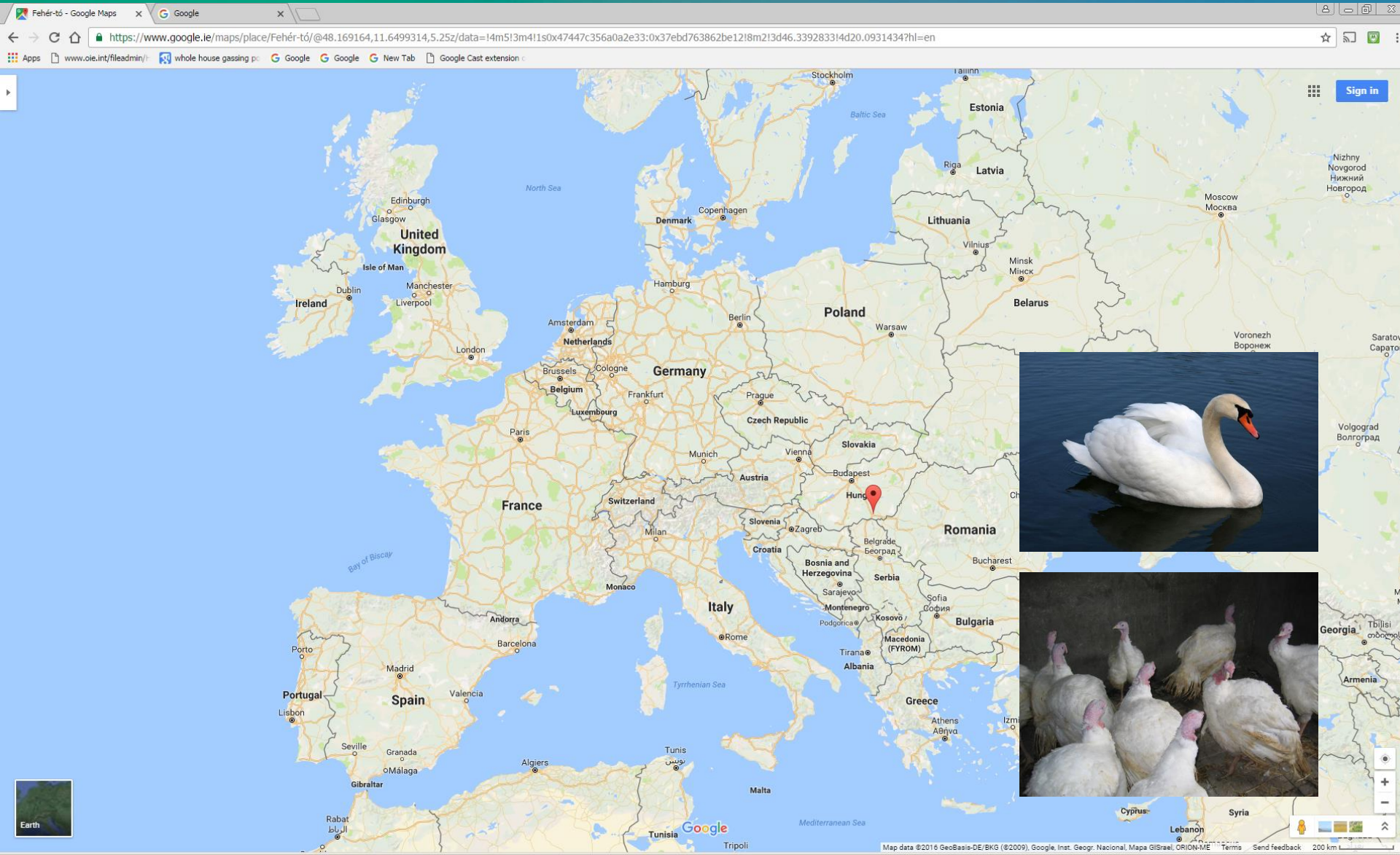
2 poultry farms
Kerala, India
Central Asian Flyway
19 October 2016

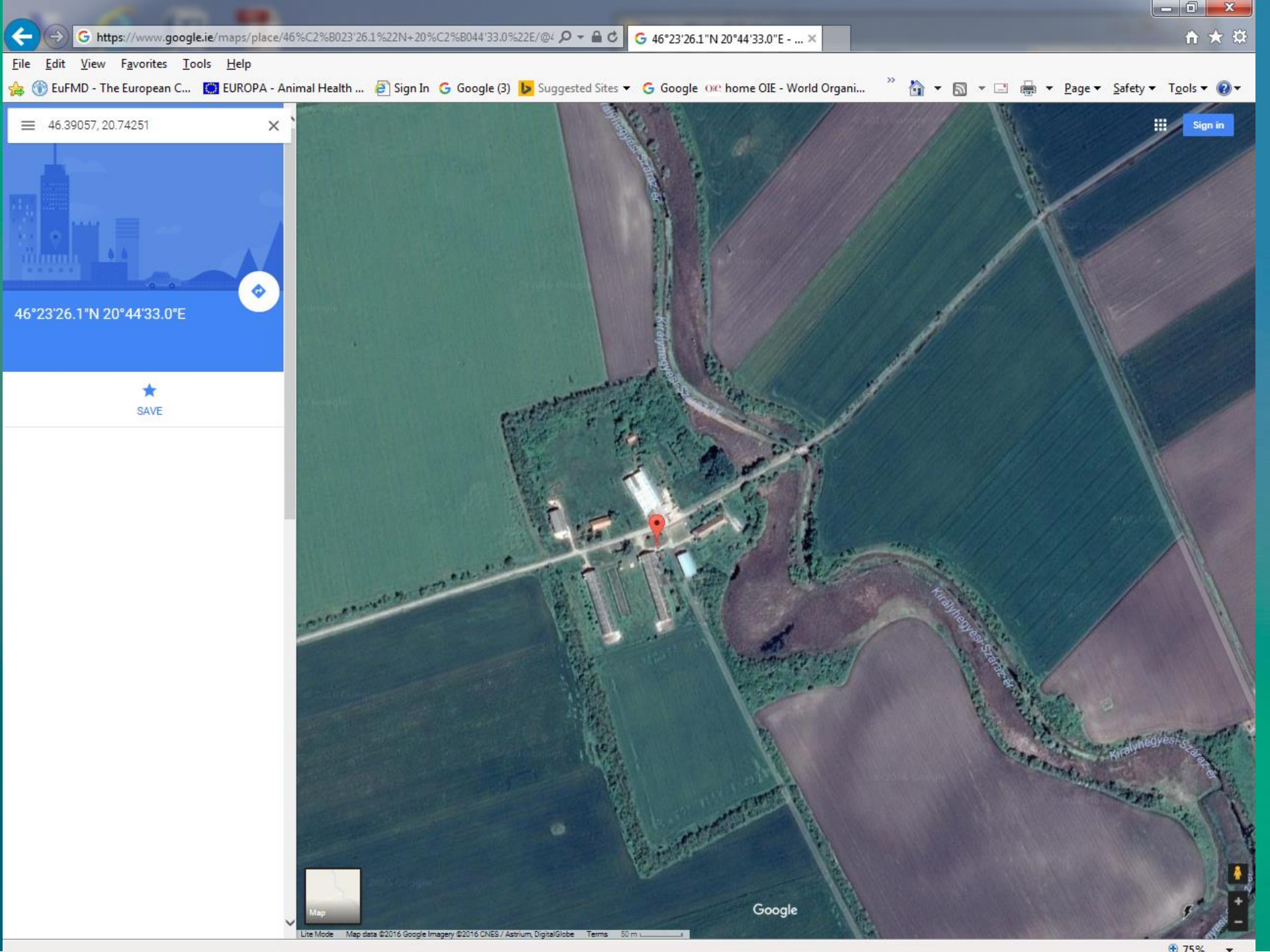
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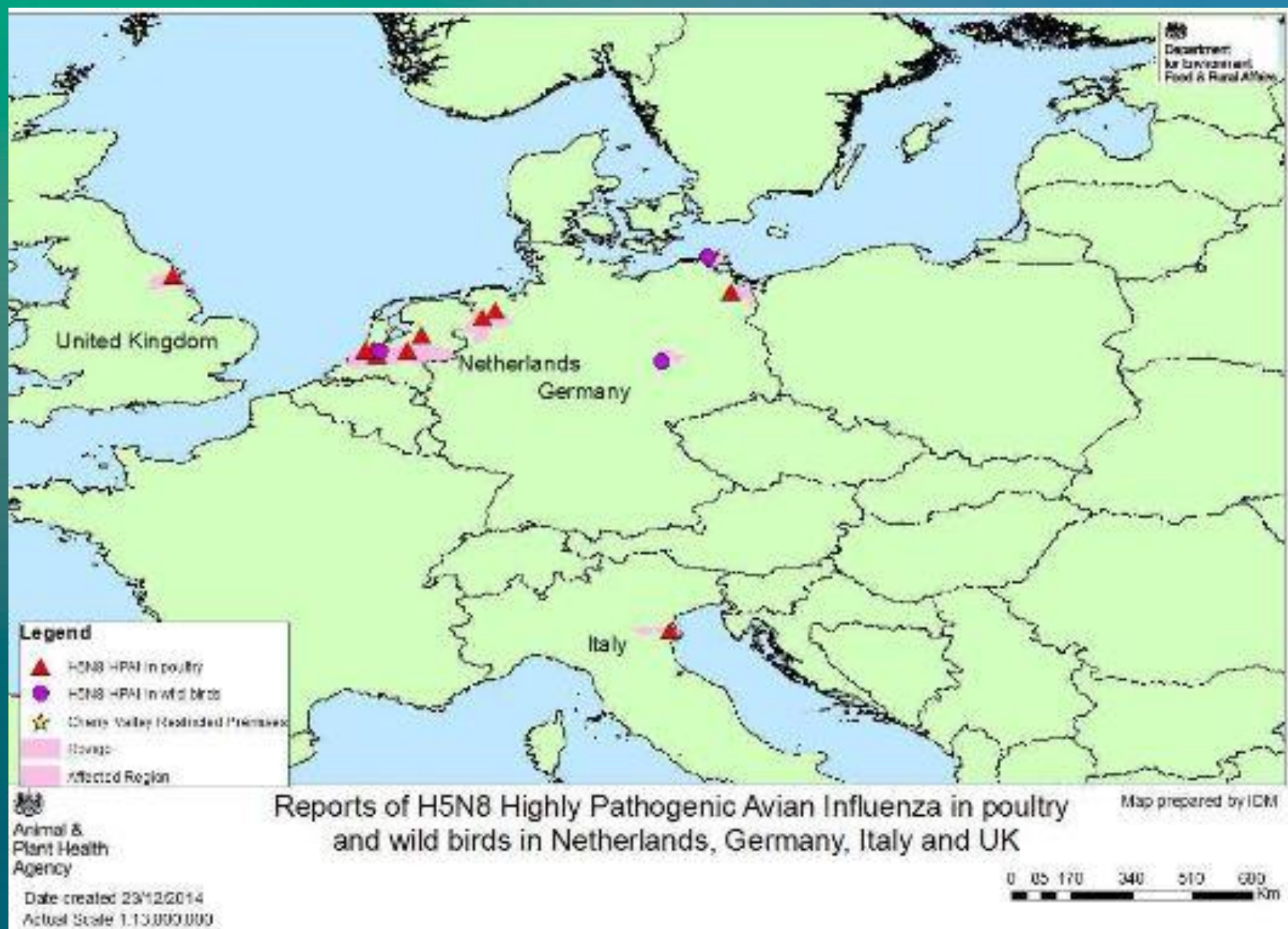


HPAI H5N8 in Hungary 2016



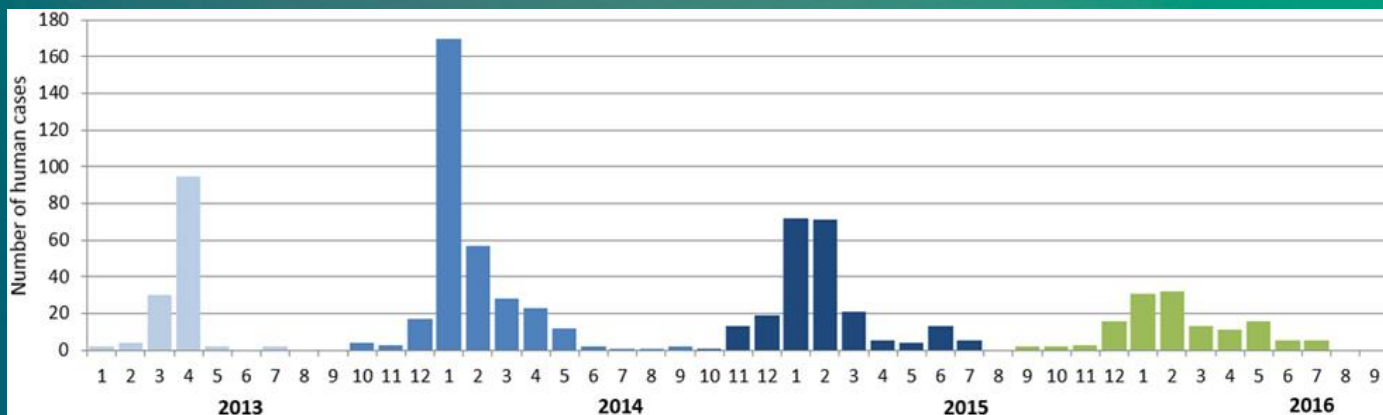


HPAI H5N8 in 2014





Number of human cases: 803 confirmed; 316 deaths (since February 2013)



Biosecurity

Controlling access & hygiene precautions:

- Vehicles
- Equipment
- People

Safe inputs:

- Day olds, pullets
- Water
- Feed
- Shavings



Hygiene:

- Carcase disposal
- Litter/manure disposal
- C&D
- Rest period

Preventing access:

- Wild birds
- Rodents
- Dogs, cats

Biosecurity

The evidence indicates that the following measures are important in the control of *Campylobacter*:

- wearing protective clothing, house dedicated footwear and/or dipping boots
- washing or sanitising hands
- cleaning and disinfecting the house and any equipment entering that house
- controlling visitors and their equipment and vehicles both to the house and the farm
- controlling pests and other animals on the farm

Evidence for the effectiveness of biosecurity to exclude *Campylobacter* from poultry flocks

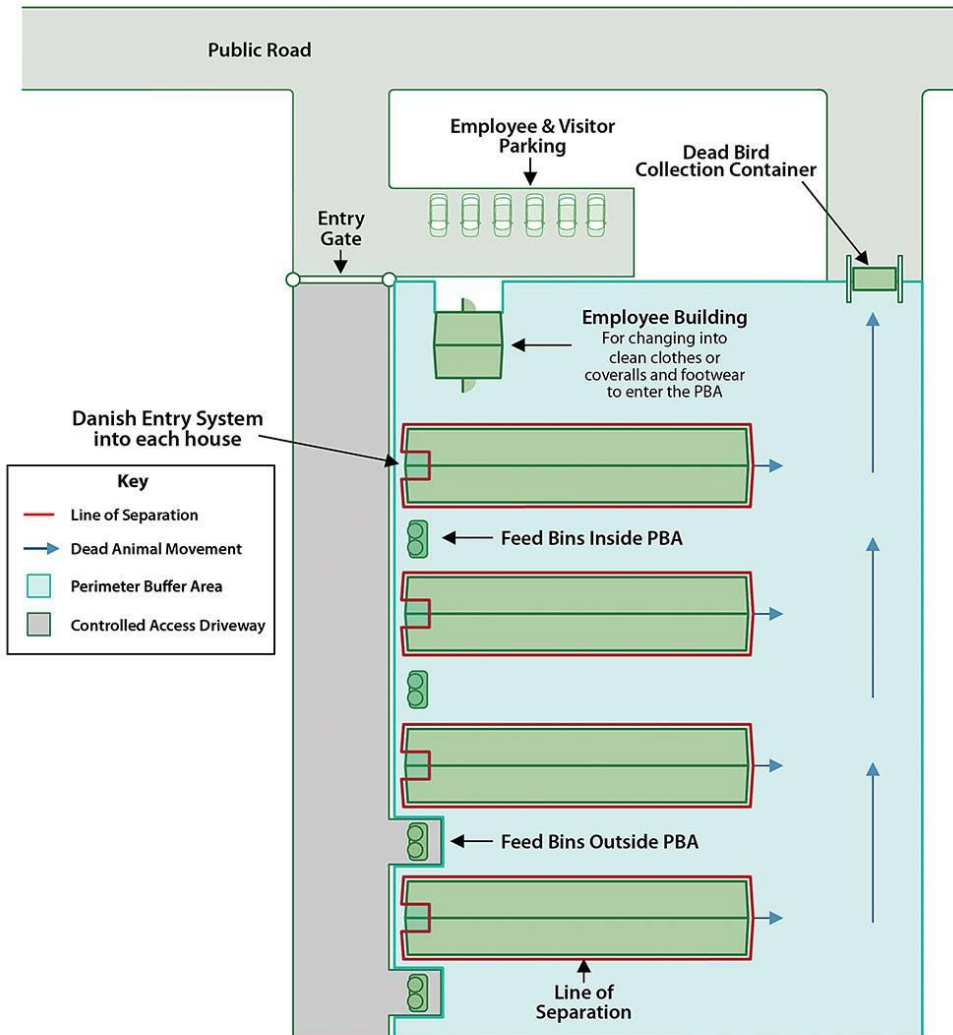
Vivien M Allen and Diane G Newell

University of Bristol, Langford, Bristol and Veterinary Laboratories Agency, Addlestone, Surrey

USA epidemic – biosecurity findings

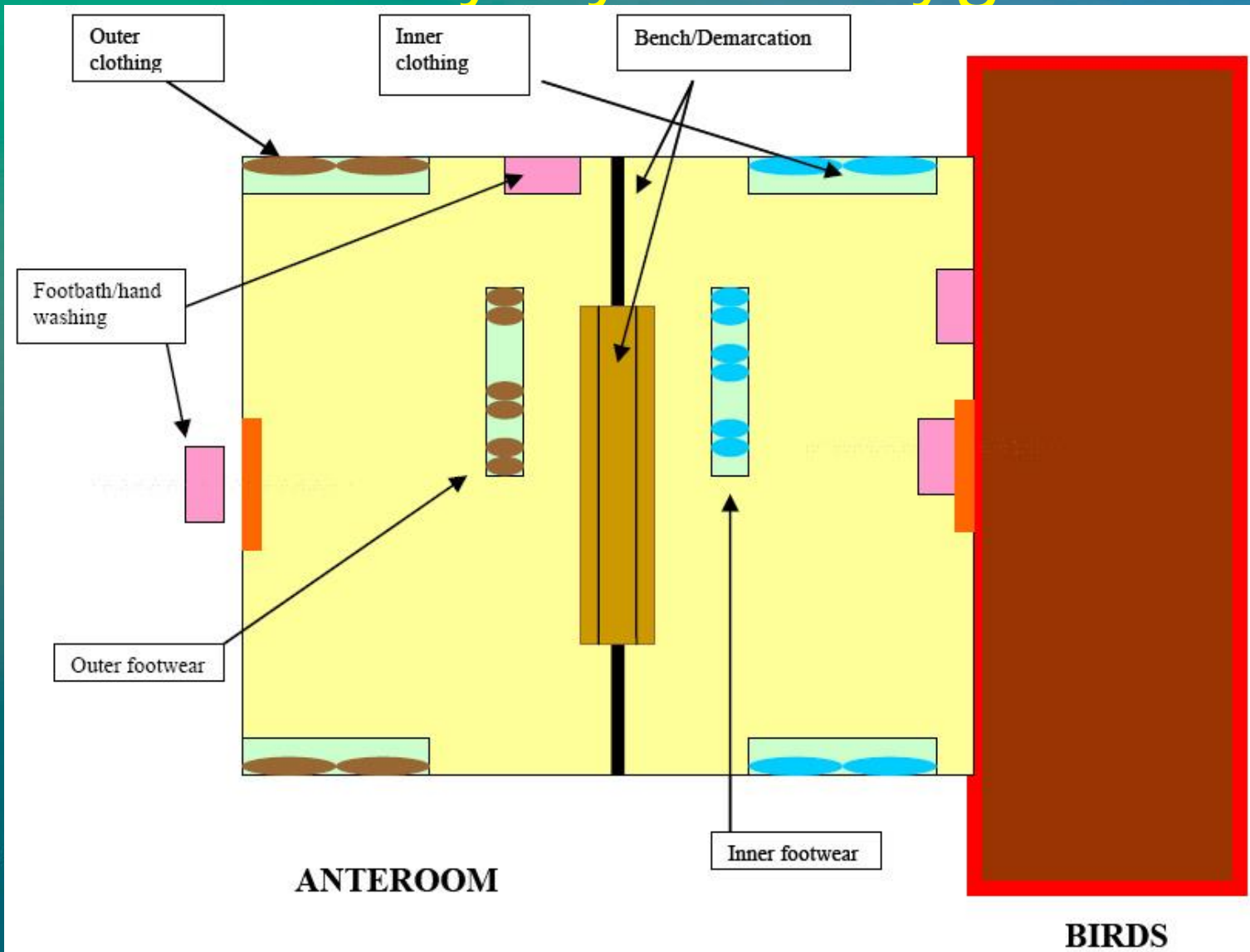
- Wild birds
- Employees moving between infected and non-infected farms
- Equipment moving between infected and non-infected farms
- Vehicles moving between infected and non-infected farms without cleaning or disinfection
- Rodents or small birds inside poultry houses
- Environmental factors include airborne virus distribution

Line of separation



*Center for Food Security and Public Health,
Iowa State University*

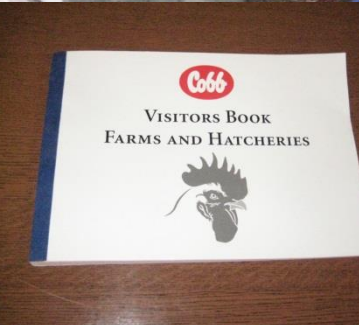
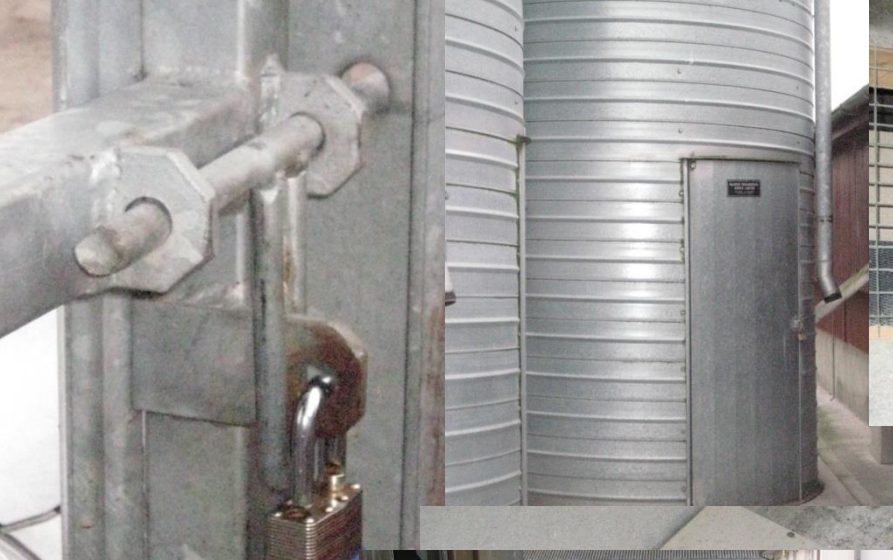
Danish Entry System/Hygiene Barrier



Danish Entry System/Hygiene Barrier

<http://www.wattagnet.com/articles/24549-important-biosecurity-concepts-for-your-poultry-farm>





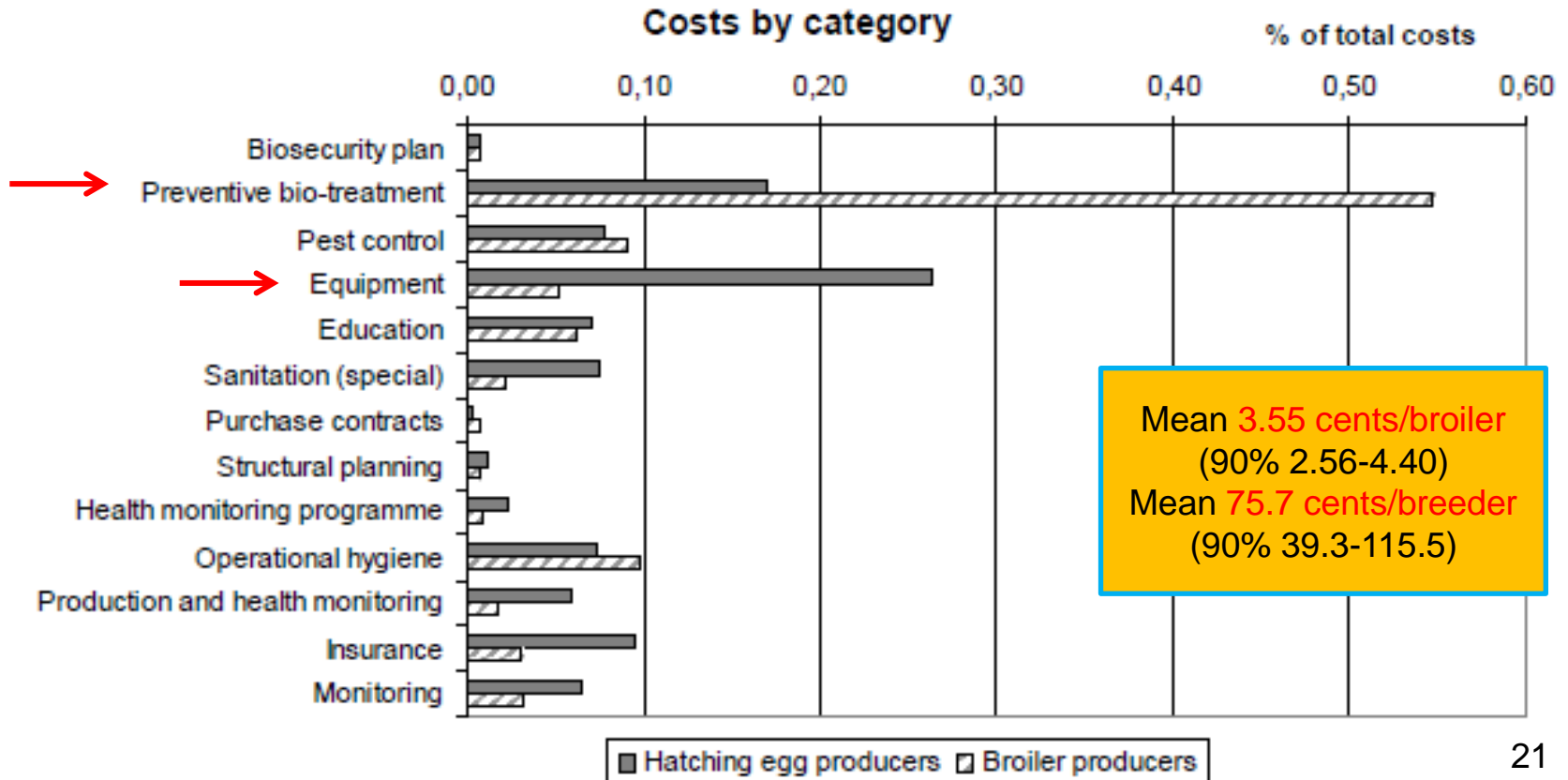
Assess your own biosecurity

- Biosecurity works
- No one size fits all
- Everyone is responsible
- Passing an audit does not make your farm secure



Cost of biosecurity

The Costs of Biosecurity at the Farm Level: the Case of Finnish Broiler
Siekkinen K.-M., Heikkilä J., Tammiranta N. and Rosengren H.



Consequences of USA HPAI epidemic

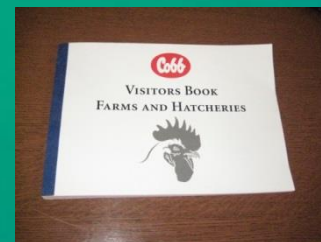
- **211** commercial flocks
- **21** backyard flocks
- **50 million** birds affected
- Duration **6 months**

Consequences of USA HPAI epidemic

- 7.46% of average U.S. turkey inventory
 - 10.01% of U.S. average layer inventory
 - 6.33% of U.S. average pullet inventory
 - <0.01% of U.S. broiler inventory
-
- Cost to economy - **\$3.3 billion**

Reporting disease early

- Know and look for the warning signs of infectious bird disease: HPAI
 - Sudden increase in bird deaths (more than normal)
 - Sneezing, gasping for air coughing, and nasal discharge
 - Watery and green diarrhoea
 - Lack of energy and poor appetite
 - Drop in egg production
 - Soft, thin-shelled or misshapen eggs
- Report unusual mortalities to your vet
- Automatic 7-day standstill on notification



But - we can rule out AI within 24 hours

Infected Areas – HPAI in Poultry



The diagram illustrates the zones for HPAI in poultry. It features a large light blue circle representing the Surveillance Zone (10 km) and a smaller light blue circle inside it representing the Protection Zone (3 km). Two yellow callout boxes provide details for each zone. The Protection Zone box is connected to the inner circle, and the Surveillance Zone box is connected to the outer circle.

SURVEILLANCE ZONE (10 km)

Movement Controls
Poultry, Eggs, Litter
Ban Shows

PROTECTION ZONE (3 km)

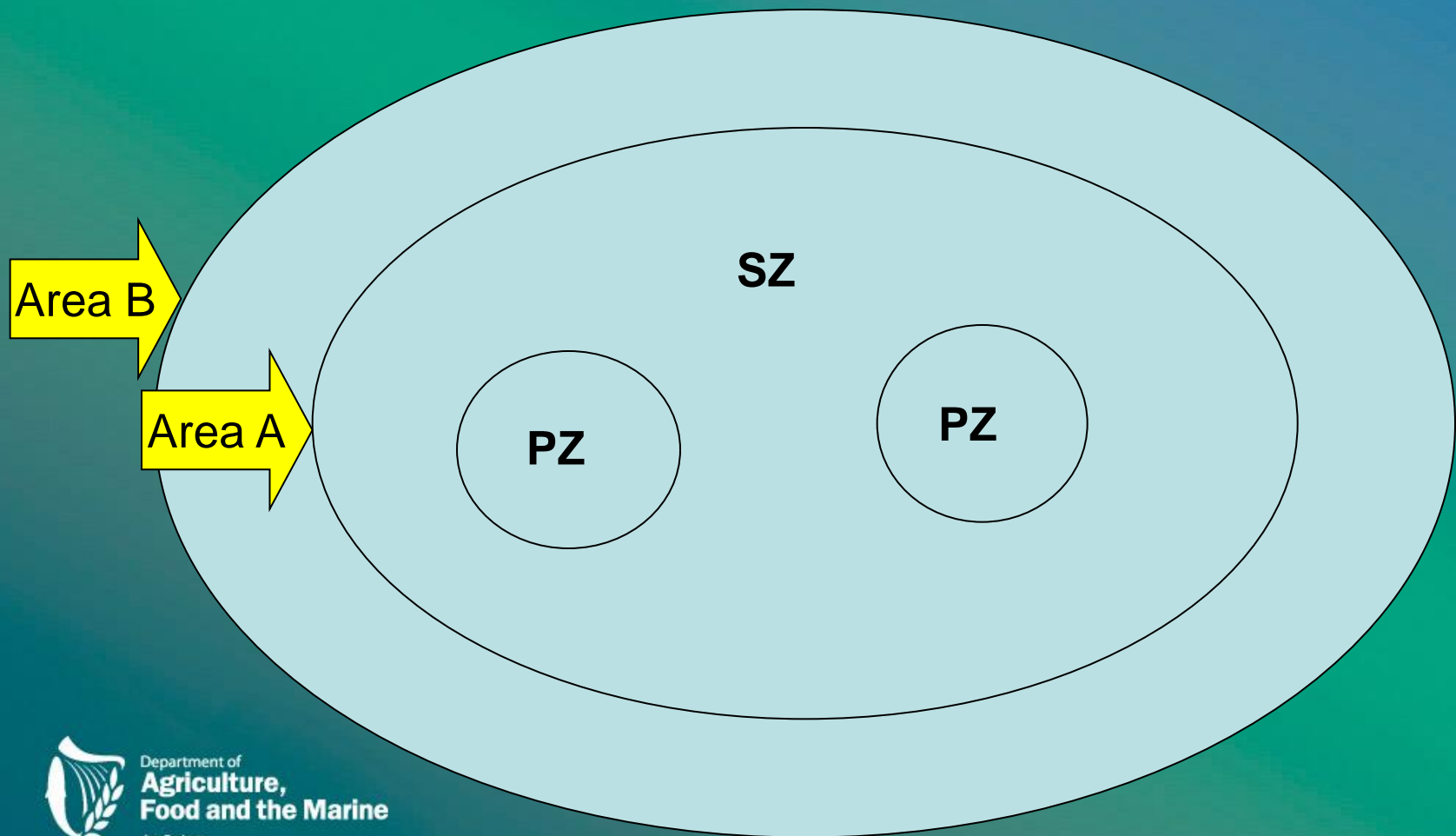
Movement Controls
Poultry, Eggs, Carcasses,
Transporters, Litter
Ban Shows
Clinical Inspections



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Confirmed HPAI H5N1 in poultry



Suspected/confirmed HPAI H5N1 in wild birds (CD 2006/563) - default position

CONTROL AREA (3 km)

Movement controls on poultry, captive birds, wild game birds & hatching eggs

Movement controls on poultry meat, wild game meat & ABPs

Controls on moving/spreading litter

Ban on bird gatherings, release of game birds & hunting birds

Clinicals & checks on biosecurity

Wild bird surveillance & removal dead birds

MONITORING AREA (10 km)

Movement controls on poultry & captive birds for 15 days

Ban on bird gatherings, release of game birds & hunting birds

Awareness booklets

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



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



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Biosecurity Information for Registered Poultry Flock Owners



DAFM risk management

- Surveillance:
 - Poultry, wild birds
- Whole-house gassing with CO2
- Containerised gassing with Argon & CO2
- Occupational Health workshops:
 - FRS, Civil Defence, Rendering Plants, NPWS
- Seasonal flu vaccination of staff

NB. Flu vaccine is free for people in regular contact with pigs, poultry or water fowl



Key messages

- Assess your biosecurity
- Plan for business continuity
- Report disease early
- Get your flu vaccine