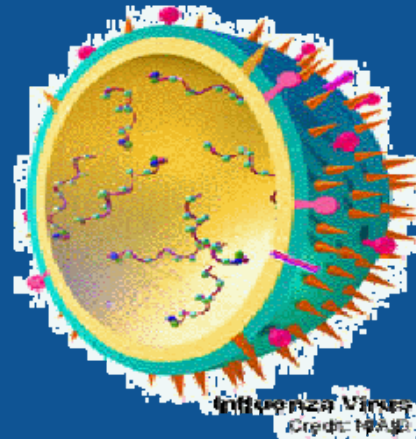


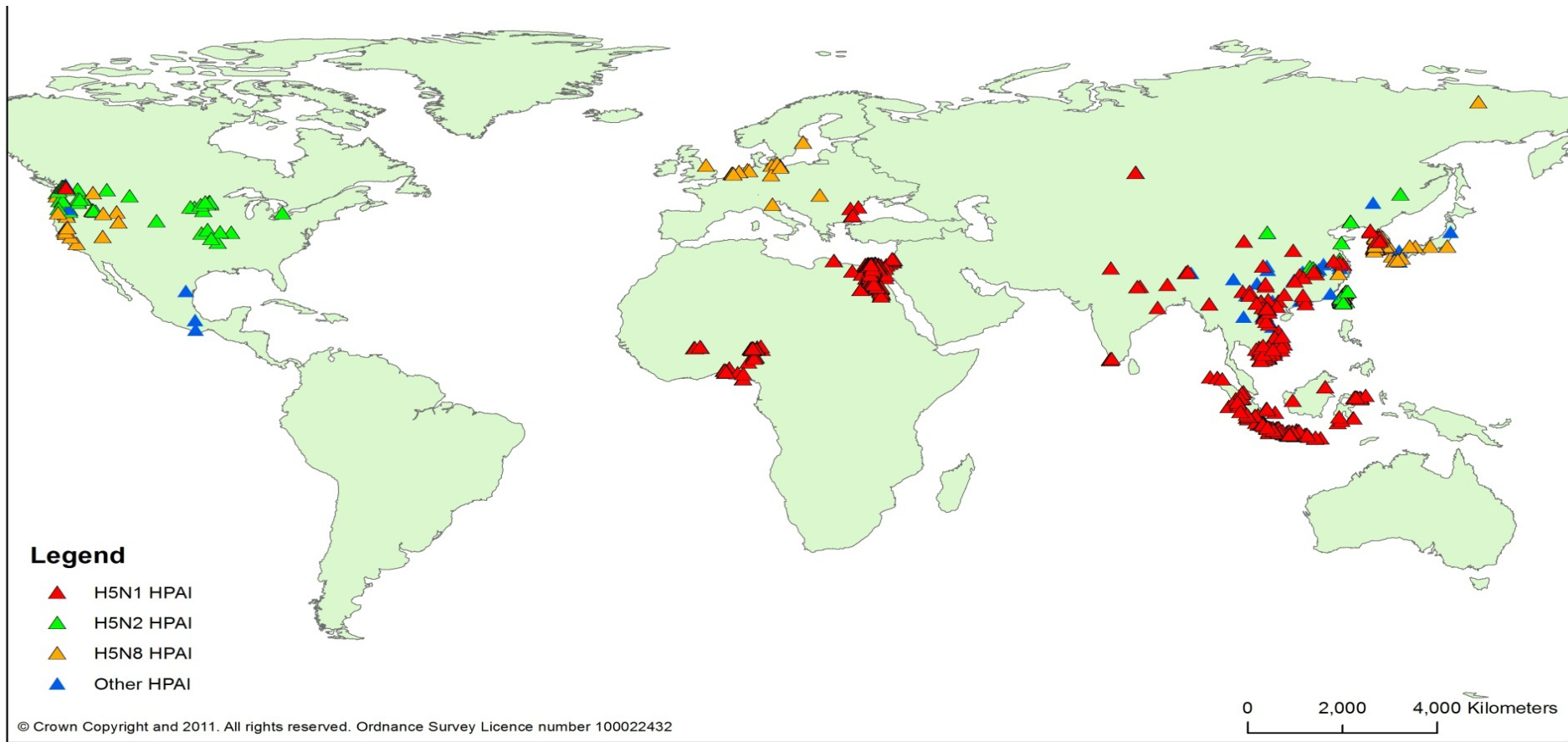



Update on avian influenza in the EU and worldwide



**Working Group of the Advisory Group on the Food Chain
Animal Health and Plant Health, 19 June 2015**

Maria Pittman
Unit G2 – Animal Health
Directorate-General for Health and Food Safety



<p>CREATOR: EU Reference Laboratory DATE: 10/04/2015</p>	<p>Highly Pathogenic Avian Influenza outbreaks in 2014 and 2015</p>	 <p>Animal & Plant Health Agency</p>
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Evolving and complex situation with multiple HPAI subtypes in four continents (Asia, Europe, North America, Africa)

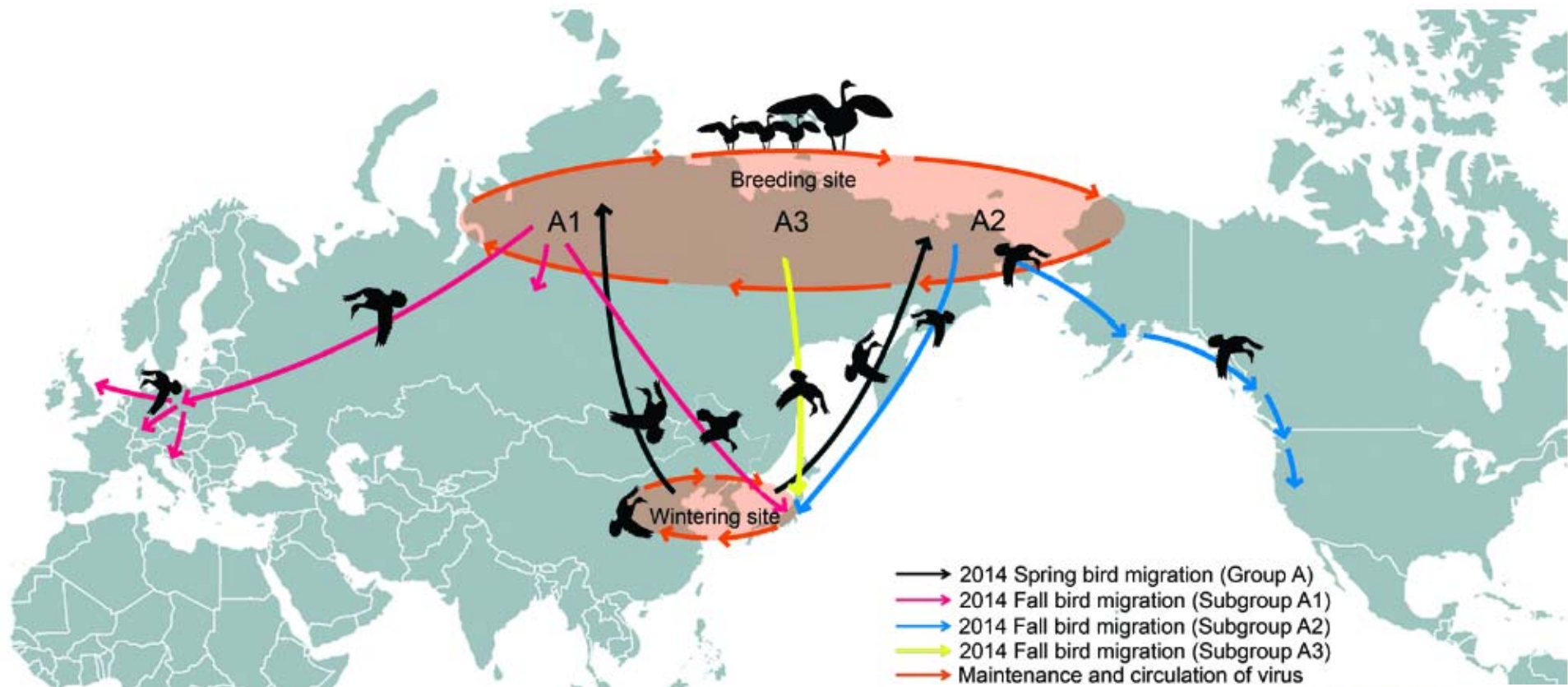
Unprecedented spread of H5 HPAI lineage 2.3.4.4

Recent spread of lineage 2.3.2.1 (H5N1) to Europe (BG, Ro) and West Africa

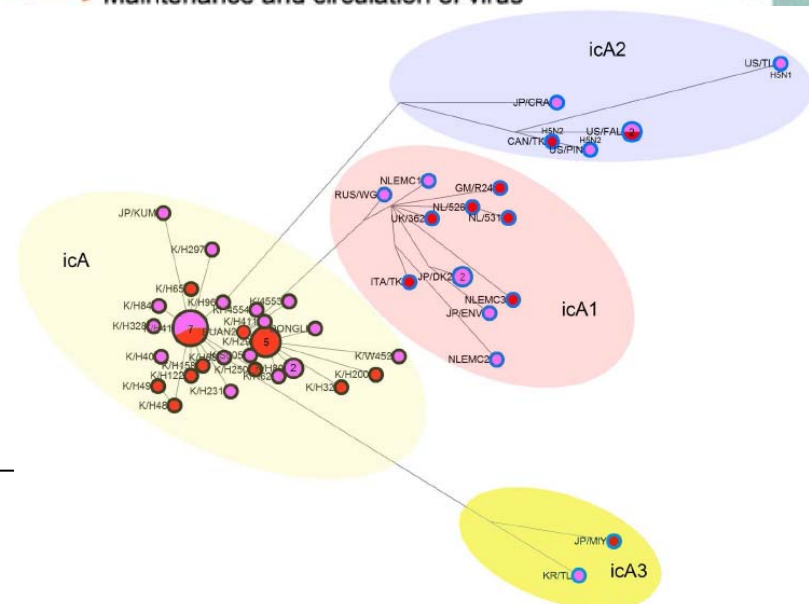
North American H5 HPAI viruses mixed with local strains

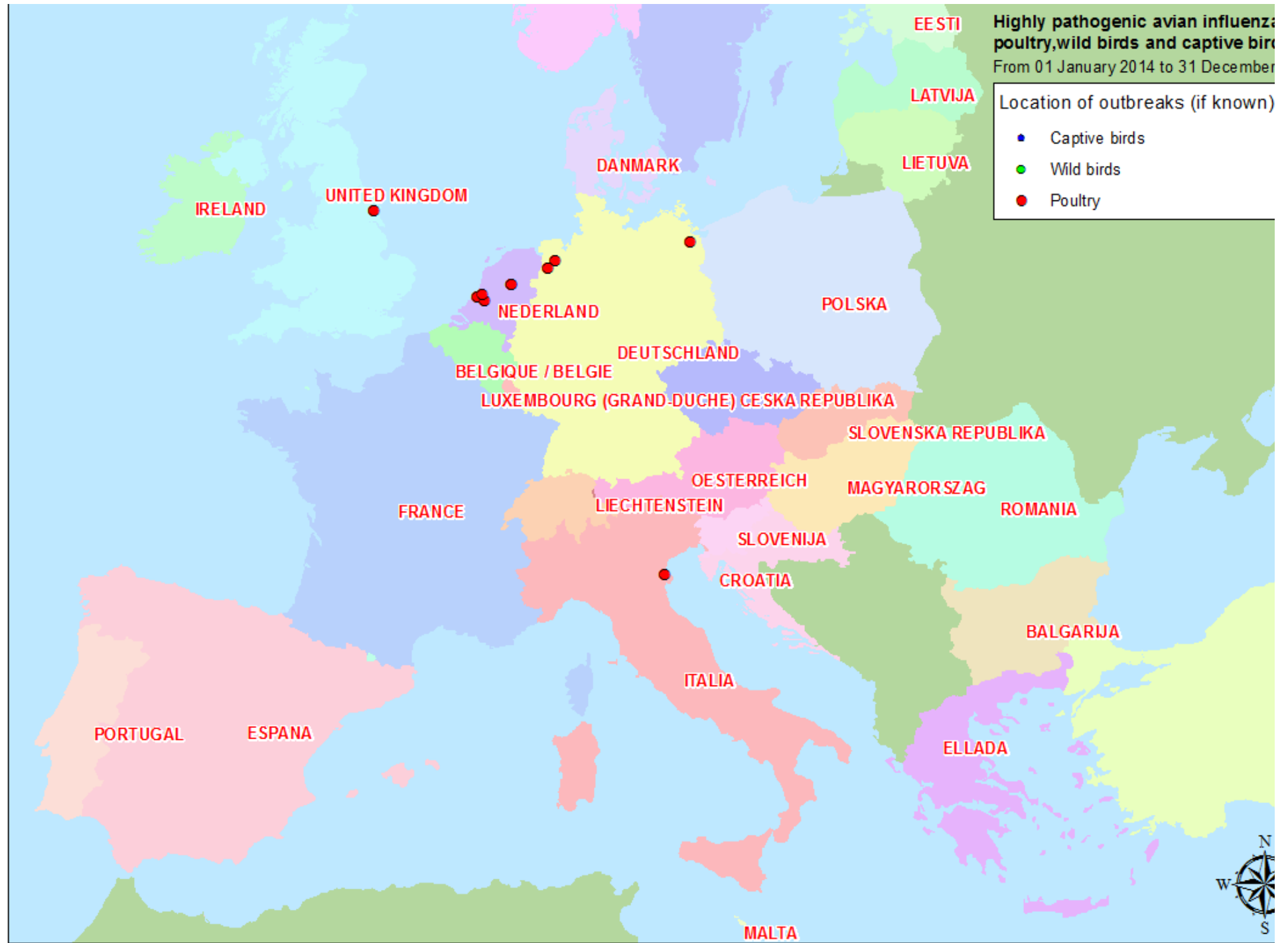
H5N2 now predominant in poultry and wild birds

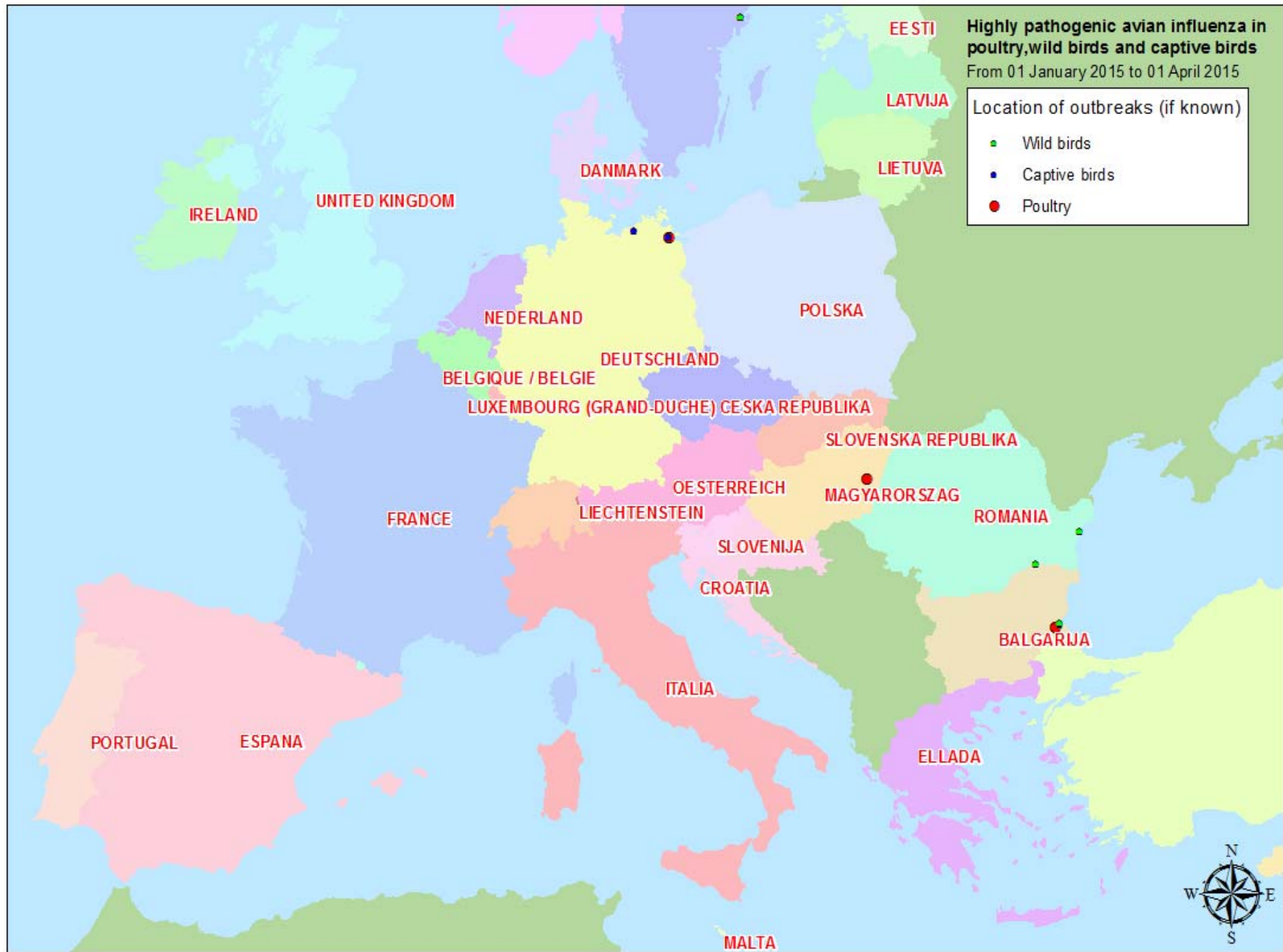
Highly infectious but **extended incubation period** most marked in turkeys



Intercontinental spread of HPAI H5N8 viruses
 Lee et al. (2015) Journal of Virology







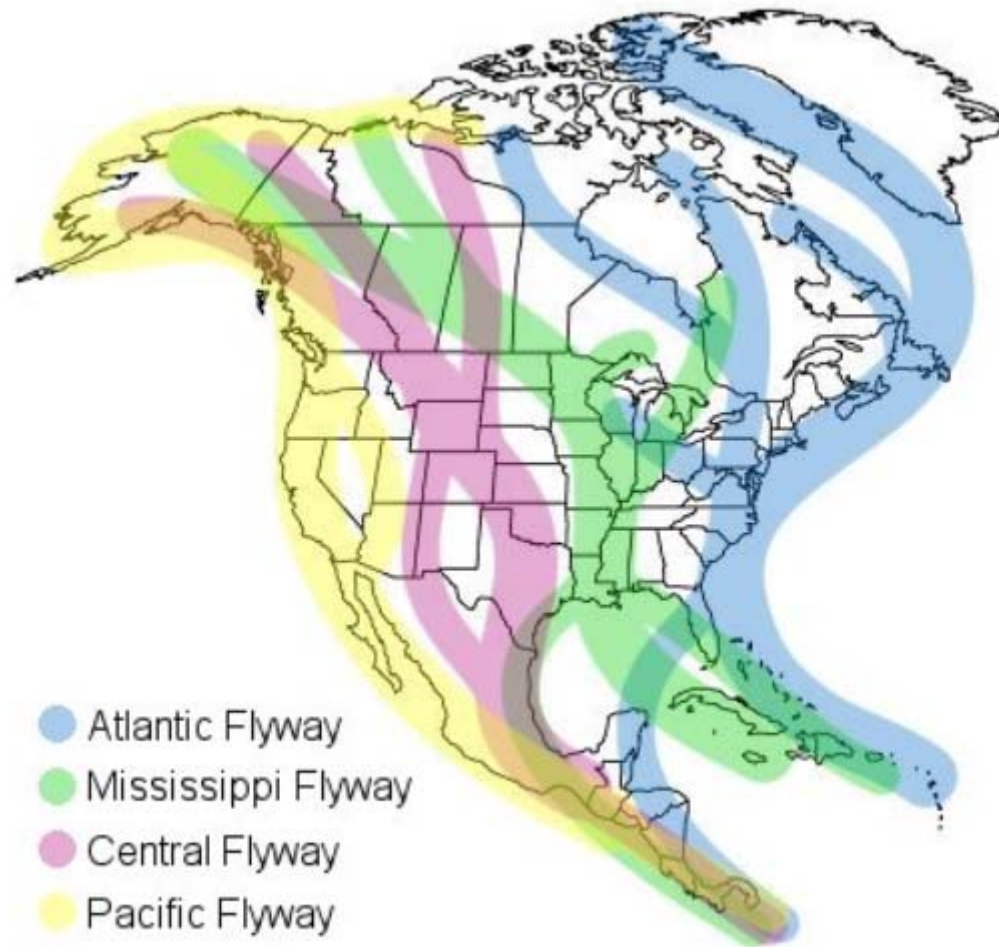
HPAI outbreaks



05/11/2014 - 24/02/2015

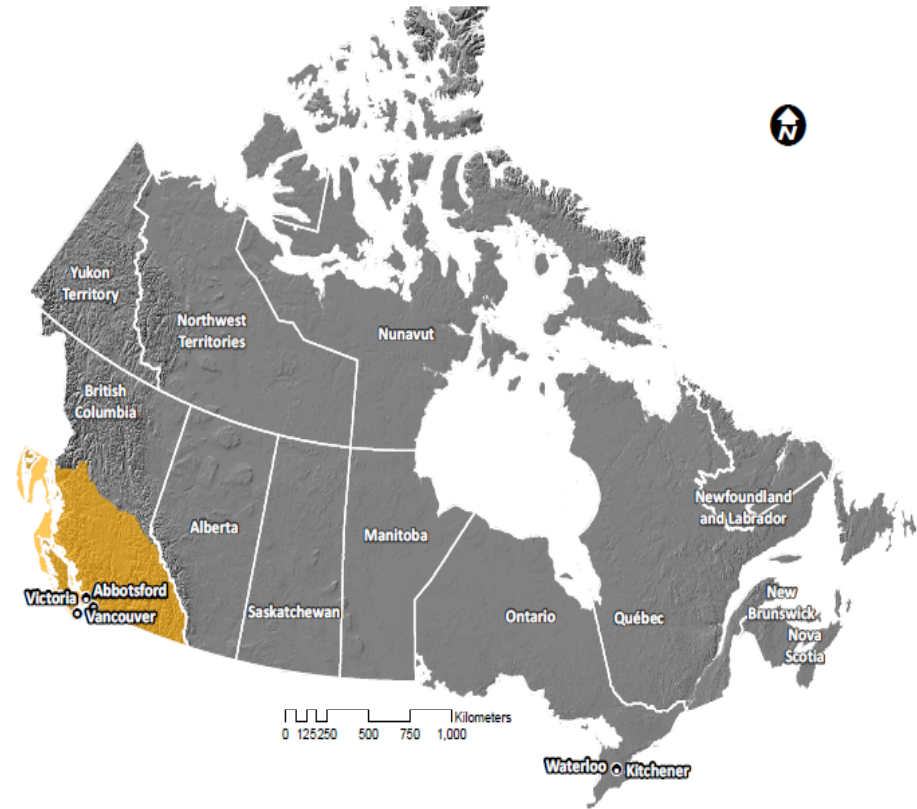
Country	Affected region	HPAI subtype	Outbreak Type	Confirmation date	Flock size	Species / Production type
Germany	Mecklenburg-Western Pomerania	H5N8	1	05/11/2014	30939	fattening turkeys indoor
	Mecklenburg-Western Pomerania, island of Ruegen	H5N8		21/11/2014	1	common teal live bird
	Lower Saxony, Cloppenburg	H5N8	1	16/12/2014	17887	fattening turkeys indoor
	Lower Saxony, Emsland	H5N8	1	20/12/2014	10102	fattening ducks indoor
	Sachsen-Anhalt, Anhalt-Bitterfeld	H5N8		20/12/2014	1	mallard dead bird
	Rostock	H5N8	1	7/01/2015	496	zoo, white stork dead bird
	Mecklenburg- Western Pomerania, Anklam	H5N8	1	20/01/2015	196	backyard
	Mecklenburg- Western Pomerania, Anklam	H5N8	2	26/01/2015	36	backyard
Netherlands	Utrecht province, Hekendorp	H5N8	1	16/11/2014	150000	laying hens indoor
	Zuid-Holland province, Ter Aar	H5N8	1	21/11/2014	43000	laying hens indoor
	Overijssel province, Kamperveen	H5N8	1	21/11/2014	10000	broiler breeder indoor
	Overijssel province, Kamperveen	H5N8	2	23/11/2014	14600	fattening ducks indoor
	Zuid Holland province, Zoeterw oude	H5N8	1	30/11/2014	28000	laying hens indoor
	Utrecht province, Kamerik	H5N8		1/12/2014	2	Eurasian widgeon live bird
United Kingdom	East Riding of Yorkshire	H5N8	1	16/11/2014	6178	breeding ducks indoor
Italy	Veneto, Rovigo	H5N8	1	15/12/2014	31985	fattening turkeys indoor
Bulgaria	Burgas Region, Poda protected area	H5N1		26/01/2015	1	Dalmatian pelican dead bird
	Burgas Region, Konstantinovo	H5N1		2/02/2015	22	backyard
	Burgas Region, Poda protected area	H5N1		6/02/2015	2	dove / gull dead bird
Hungary	Békés County, Füzesgyarmat	H5N8	1	24/02/2015	21170	fattening ducks indoors
Sweden	Stockholm, Djurgården island,	H5N8		Feb/March	2	mute swan (cygnus olor) dead bird
Romania	Tulcea/Constanta county - Danube delta	H5N1		26/03/2015	6+/64†/250	Dalmatian pelican dead bird

North American flyways - schematised





BC Primary Control Zone for Avian Influenza 2014



BC Primary Control Zone In Reference To Rest of Canada

AVIAN INFLUENZA PRIMARY CONTROL ZONE BRITISH COLUMBIA 2014



Canada – regionalisation

British Columbia:

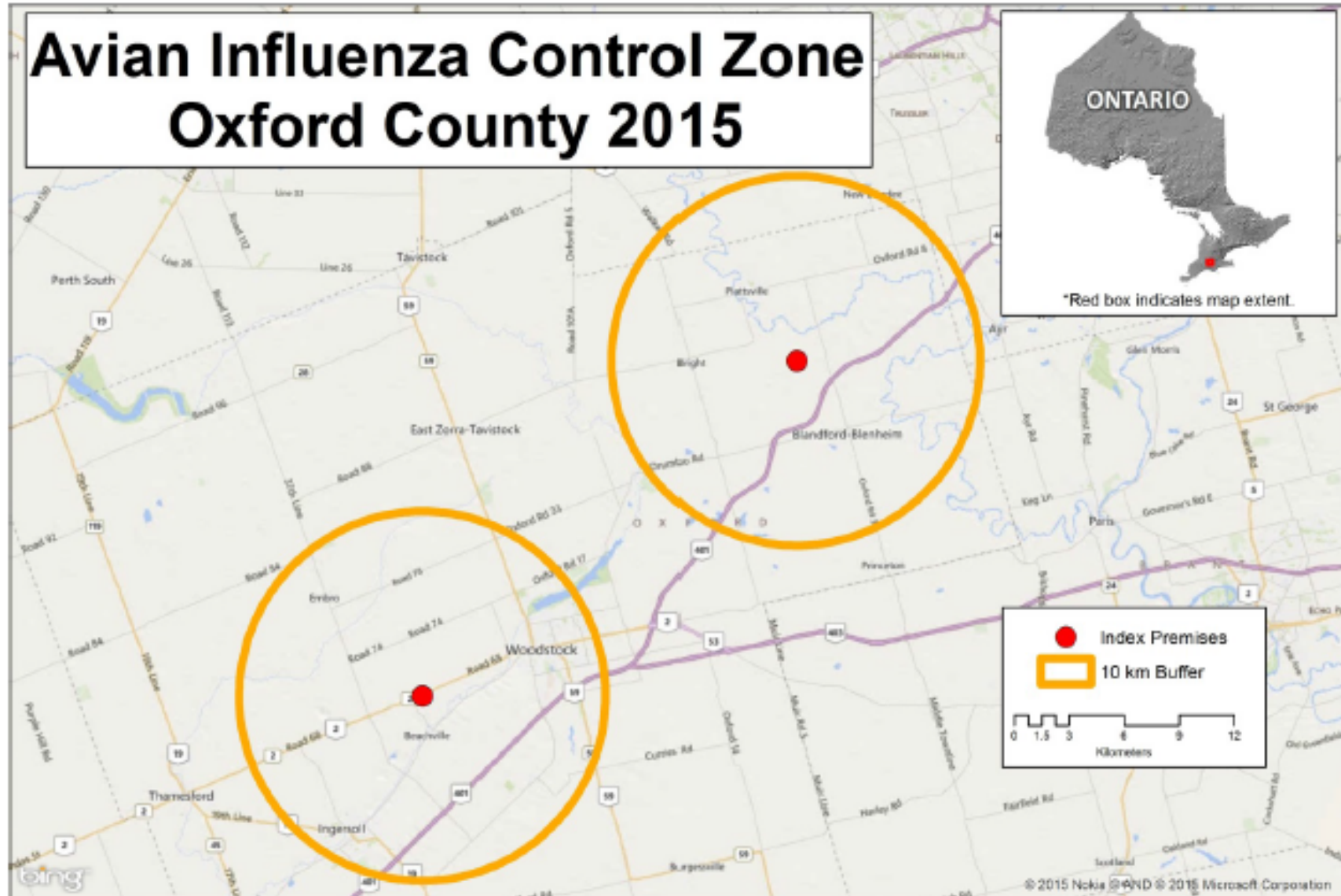
13 outbreaks as of first confirmation on 04/01/2014
- lifting of restrictions by **09/06**.

Ontario:

3 outbreaks between 08-23/04 all in Oxford county
Regionalisation of two '**avian influenza control zones**' 10km radius around outbreak farms
Second control zone covers two last outbreaks



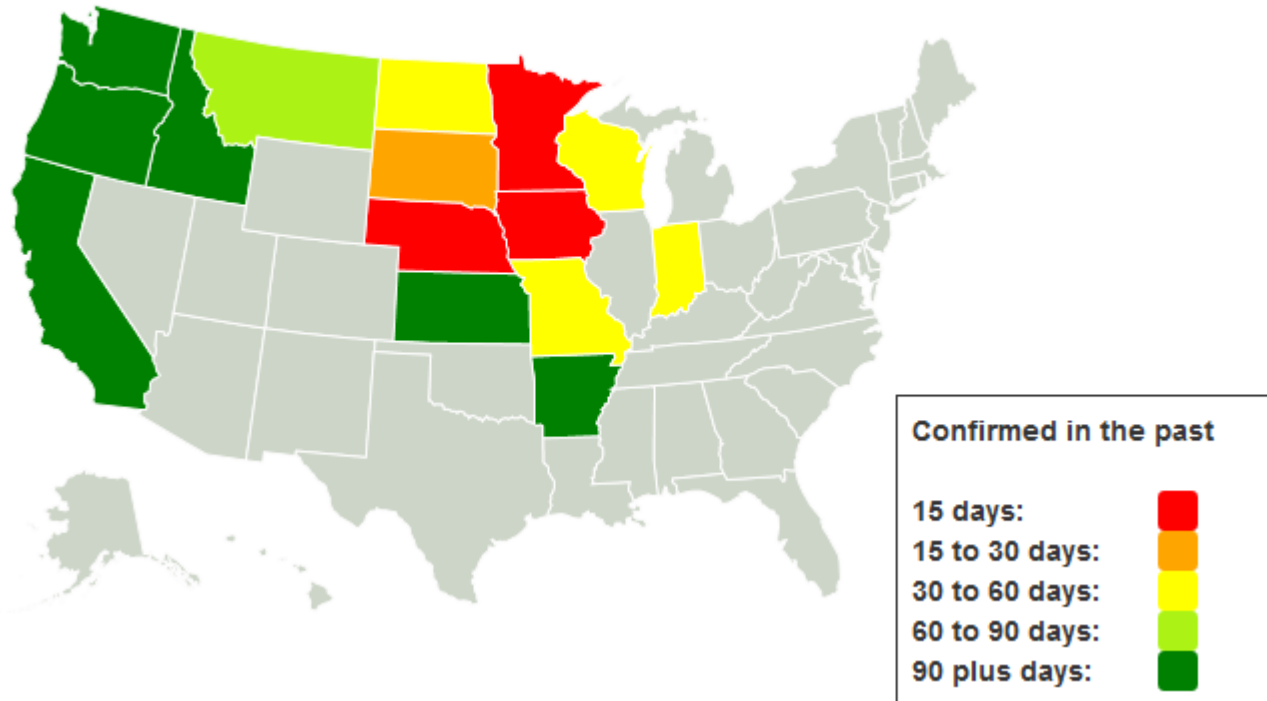
Avian Influenza Control Zone Oxford County 2015





Update on Avian Influenza Findings Poultry Findings Confirmed by USDA's National Veterinary Services Laboratories

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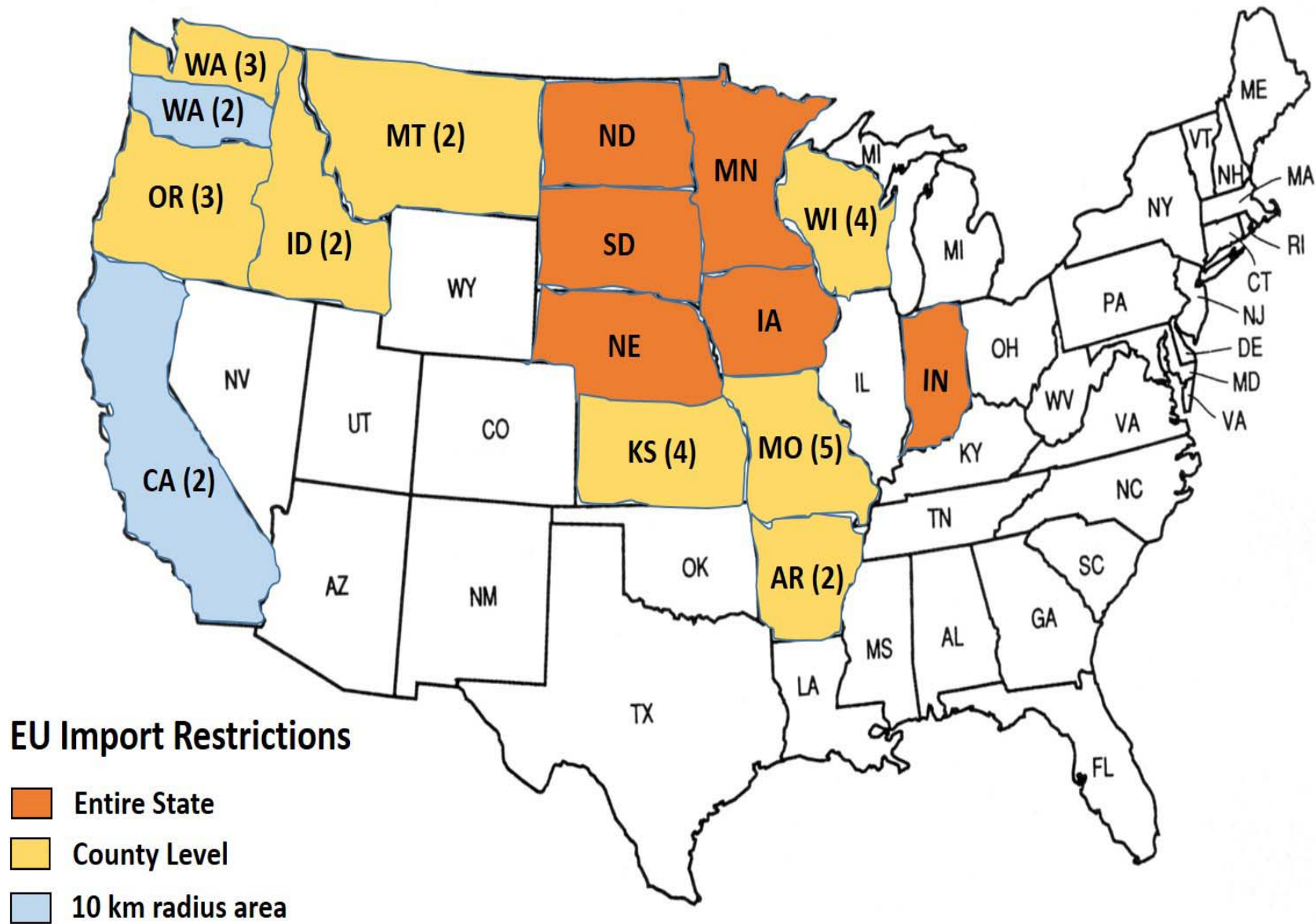
- 223 Outbreaks
48 Million birds affected:
- 19/12/2014 first detection
17/06/2015 last detection

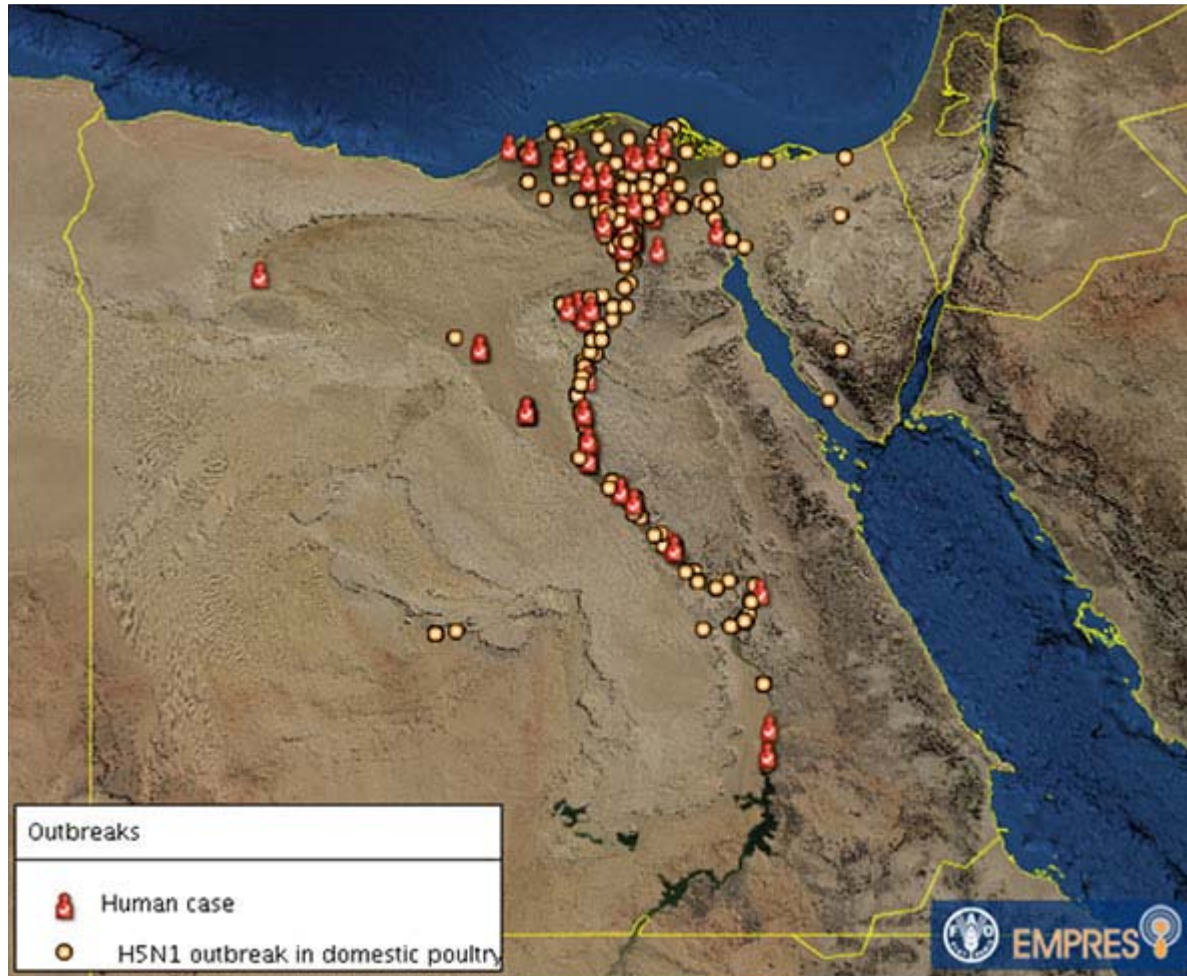


USA - Current situation and regionalisation

- **Extent of epidemic – 222 outbreaks in 15 States:**
 - *Oregon, Washington, Idaho, California, Kansas, Arkansas, Missouri, Montana, **Minnesota** (turkeys), **Iowa** (laying hens), North and South Dakota, Wisconsin, Indiana, Nebraska*
- **Wild bird findings** also in States without poultry outbreaks:
 - *Nevada, New Mexico, Wyoming, Utah, Kentucky*
- **Results of epidemiological analysis** for HPAI infected poultry flocks of 15/06/2015 published
http://www.aphis.usda.gov/animal_health/animal_dis_spec/poultry/downloads/Epidemiologic-Analysis-June-15-2015.pdf
 - single point virus introduction via wild birds
 - lateral spread between poultry holdings
 - Biosecurity at farm level?

Regionalisation as voted at the PAFF meeting on 5th June 2015





HPAI in other third countries HPAI H5N1 Egypt

Cases in humans
recently
dramatically
increased

Since 12/2014 - end 02/2015:

- 352 poultry outbreaks
- 101 human cases/31 fatalities
- as compared to only 44 poultry outbreaks and no human cases reported during the same period the year before.



H5N1 HPAI in Egypt (cont.)

- Outbreaks in commercial and household poultry all year round
- humans get occasionally infected when in close contact with sick poultry (>household keeping)
- Preliminary analysis of the genome sequences of circulating H5N1 viruses suggests that they continue evolving
 - less awareness, protection by vaccines?
- No similar surge in cases reported in any other country
- Clusters, but so far no sustained human-human transmission
- <http://ecdc.europa.eu>



HPAI in other third countries: H5 and H5N1

Israel:

01-02/2015: 8 outbreaks and one in early 05
in commercial holdings
no imports as certification suspended
virus related to Egyptian viruses

Palestinian Auton. Territories:

01-03/2015: 4 outbreaks in West bank (commercial and
backyard) and 2 in Gaza strip (small holders)

Turkey:

04-05/2015: 3 outbreaks in the Asiatic part of the country
reported via the ADNS system

Last outbreaks in 2008 (7)

Imports of heat treated poultry meat products produced from
meat sourced from approved third countries or Member States



European
Commission



***Thank you for
your
attention!!***

http://ec.europa.eu/food/animal/diseases/controlmeasures/avian/index_en.htm

Health and
Consumers

Vaccination against **AI** EU/USA



- ***EU: Emergency and preventive vaccination***
 - Member States' decision
 - Approved plan with surveillance and control of movements
 - **very little use of vaccination in poultry and zoo birds**
 - **Member States do not see the advantages in using emergency vaccination with currently available vaccines**
 - onset of immunity too slow, protection not always satisfactory
 - cumbersome, costly application
 - trade implications although internationally recognized measure

USDA: vaccination never used to control HPAI

- Stamping-out considered the best tool
- vaccine strain is developed
- USDA/APHIS decision to introduce vaccination in particular in layers and turkeys