



Department
for Environment
Food & Rural Affairs



Animal &
Plant Health
Agency

HPAI H5N8 in the United Kingdom

PAFF Committee, 28th November 2014

Presented by: Jane Clark

Outbreak History

- 14 November 2014: APHA Investigation into suspicion of avian notifiable disease on an indoor breeding duck holding and restrictions placed on premises.
- 16 November 2014: Sequencing results confirm high pathogenicity. N1 PCR negative. **UK CVO confirmed presence of HPAI H5** and PZ and SZ established.
- 18 November 2014: N-type of virus confirmed as N8 – **H5N8**.
- 18/19 November 2014: Depopulation and Disposal completed
- 20/21 November: Preliminary C&D completed

The Infected Premises



Crown Copyright and database rights 2014 Ordnance Survey Licence No. 100051110.

Disease Control Measures - IP



All measures in line with **Directive 2005/94/EC** have been applied:

- Depopulation – 18/19 November
- Preliminary C&D – 20/21 November
- All eggs from IP traced to single hatchery and destroyed.
- Hatchery C&D – 26 November

The Infected Premises



Disease Control Measures – PZ/SZ

Restriction zones in place from 16 November:

- 3km Protection Zone (PZ) and 10km Surveillance zone (SZ)
- No movement of live poultry, eggs, poultry products, manure or bedding out of the zones – except by licence
- Requests for licences to move animals and animal products in the PZ and the SZ to outside the zone are prioritised and risk assessed. Those currently available are published on Defra website.
- All contacts traced and other tracings progressing well

NO EVIDENCE OF SPREAD FOUND TO DATE (27/11/2014)

Disease Control Measures

Other measures:

- Increased passive wild bird surveillance (focus on target species)
- Issued updated guidance on biosecurity measures – 25 November
- Advice on separating domestic birds from wild birds, protecting feed and water and keeping poultry away from standing water. Where possible consideration should be given to housing domestic birds.
- Guidance provided on vaccination of birds in zoos
- Notifiable Avian Disease Control Strategy for Great Britain

All shared widely with stakeholders, industry and the public.

Surveillance

- PZ surveillance ongoing with numbers increasing as foot patrols discover a few additional backyard / smallholders
- No evidence of spread of disease to date (27/11/2014)
- Tracings – large number of low or moderate risk tracings have been identified and ongoing
- A small number of high risk tracings have been sampled – results to date are negative (27/11/2014)
- Report cases have increased (all negative to date) which shows the heightened awareness of the industry, and more specifically of backyard keepers

Epidemiological Investigations

Source/Trace Backward:

- Hypotheses for source of infection being investigated:
 - Contact with infected wild birds - direct contact much less likely than indirect contact.
 - Direct introduction by purchased birds – very unlikely but final results awaited
 - Indirect contact with contaminated people, fomites – investigations ongoing.
 - Introduction through infected products brought into holding – very unlikely, investigations ongoing (feed eliminated).
- Analysis undertaken by the EURL (Weybridge) found a close phylogenetic relationship (>99%) between the UK, German and Netherlands isolates but no direct connections between infected premises identified to date

Epidemiological Investigations

Spread/Trace Forward:

- No movements of live poultry, hatching eggs or day old chicks to other Member States or Third Countries from the IP during the high risk period.
- Hatching eggs for domestic market sourced from IP during tracing window have been destroyed.
- Carcasses from IP during tracing window have been destroyed.
- Tracings of people, vehicles, contact premises (including a hatchery) is underway including sampling of premises with waterfowl and gamebirds only.
- All poultry premises within the 3km PZ have been inspected and there is no sign of clinical disease. Two premises have no galliformes and are being sampled.
- SZ activities are ongoing.

Assessment of Wild Bird risk

Three meetings with our Ornithologists Expert Panel:

- Discussed the risk of incursion through movement of wild birds from the Continent and introducing disease to UK Infected Premises (LOW)
- The risk of spread off the Infected Premises through the movement of wild birds (VERY LOW)
- The risk of further incursions into poultry as a result of contact with infected wild birds already present in the UK (LOW) but with high level of uncertainty.
- Now assessing the possibility of variability in wild bird risk over time, to assess the duration of any increased risk.

Wild bird surveillance

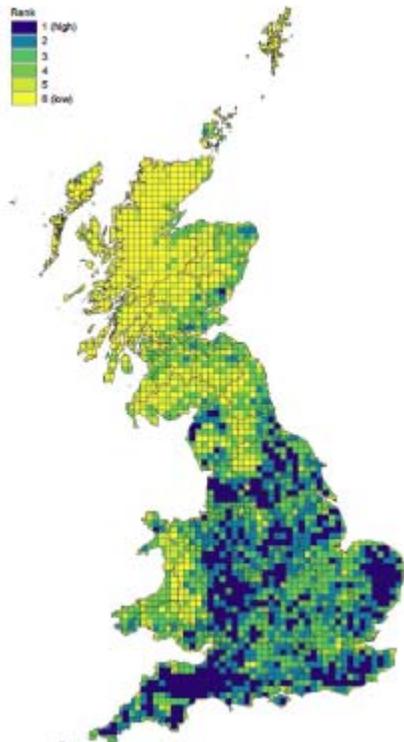
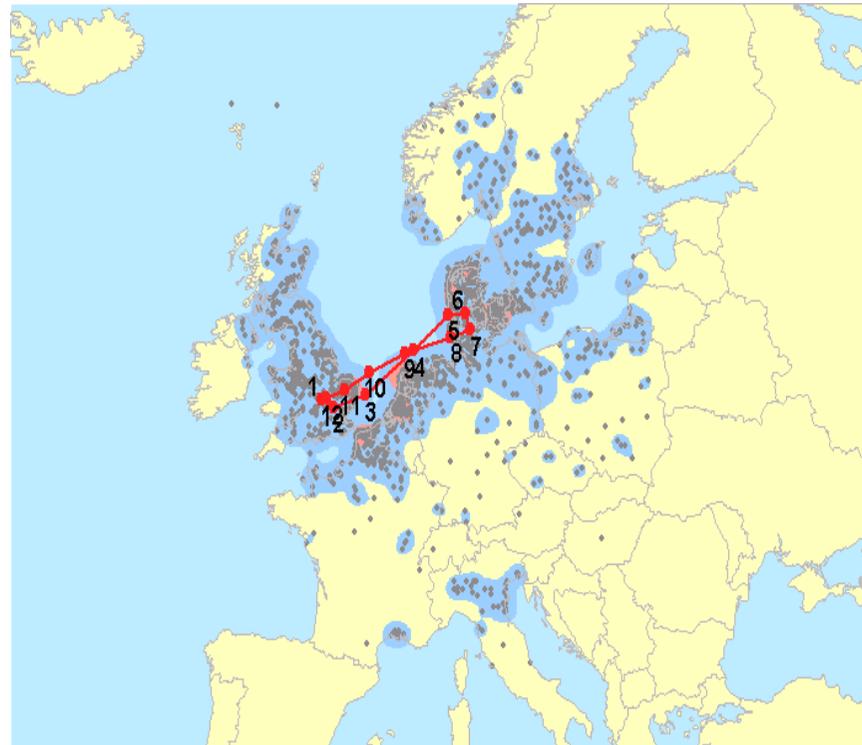


FIG 1: Map showing the risk of incursion of avian influenza H5N1 in domestic poultry in areas ranked 1 to 6 in order of high to low risk



Risk mapping of poultry density and wild bird populations (Target Species) [Snow et al., 2006]

Migration of Common teal, *Anas crecca*

Assessment of Wild Bird risk

Wild bird risk assessment and decision on housing

- Increased passive wild bird surveillance (to ascertain if there is wide spread infection in wild birds).
- Situation under close review with ongoing monitoring and surveillance.
- Housing:
 - Poultry keepers must adhere to good biosecurity measures.
 - Avian Influenza (bird flu) Wild birds: biosecurity measures published 25th Nov.
 - A declaration making housing of poultry mandatory remains an option.

EU and International Trade

- We have contacted a number of member states in relation to possible intra-community trade issues regarding the outbreak.
- Intra-community movements of poultry and poultry products continue outside the Restriction Zones.
- Any meat produced within the zones is being health marked appropriately.
- For checks please use the Defra interactive map at:
<http://www.gisdiseasemap.defra.gov.uk/intmaps/avian/map.jsp>

Communications - Update

- Key messages:
 - To the industry to remain vigilant and apply high standards of biosecurity.
 - Updated biosecurity guidance issued on 25 Nov. Where possible consideration should be given to housing domestic birds.
 - Biosecurity advice shared with stakeholders and specialist media.
- Regular updates on the Gov.UK website as new information is available.

Conclusions and next steps

- Proportionate control measures have been applied in line with Directive 2005/94/EC and have been kept under review as the situation develops.
- Communications to the Industry are highlighting the need for vigilance and high standards of biosecurity and we have published guidance on housing.
- Increased wild bird surveillance (passive with a focus on target species).
- We will provide a further update at the next PAFF Committee (4/5 December).

Thanks to colleagues from Defra, APHA and others who have contributed to this presentation.

For more information please see:

<https://www.gov.uk/avian-influenza-bird-flu>