



Mission of the Community Veterinary Emergency Team to ITALY

SCOPE of the mission: to evaluate the control and eradication strategy for highly pathogenic avian influenza in poultry and wild birds in Veneto, Lombardia and Emilia Romagna regions

(22-24 November 2017)

Terms of Reference

1. The experts should provide assistance to the scientific, technical, managerial and practical on-the-spot aspects required for the development and refinement of the control strategy for highly pathogenic avian influenza (HPAI) within the framework of Directive 2005/94/EC. Measures should be based on sound science and take into account the local conditions.
2. The experts should report exclusively to the Commission services and the Italian competent authorities. Daily reports should be produced and continuous contact should be guaranteed between the team, the Commission services and the competent authorities. A final report should be produced by the lead expert; this report should include recommendations to the competent authorities.

Terms of Reference

3. An expert of this team should report to the Commission and the Member States in the framework of the Standing Committee on Plants, Animals, Food and Feed.
4. The experts shall operate under the provisions laid down in Commission Decision 2007/142/EC and in particular on the basis of the standard rules of procedure for groups of experts.

CVET MISSION SCOPE

Tried to identify potential risk factors that may play a role in outbreak development/ongoing threat

Timeframe considerations

Conclusions may be constrained due to misinterpretations/lack of information at time

Feedback from IT participants welcome

CVET

Places visited during the mission 22 Nov 2017

Istituto Zooprofilattico Sperimentale delle Venezie

Stefano Marangon, IZSVE

Lebana Bonfanti, IZSVE

Pierdavide Lecchini, Ministero della Salute

Isabella Monne, IZSVE

Calogero Terregino, IZSVE

Laura Favero, Regione Veneto

Michele Bricchese, Regione Veneto

CVET members

Ian Brown (EURL, UK)

Matthias Kramer (LAVES, DE)

Stig Mellergaard (DK Veterinary services)

Francisca Velkers (Utrecht University, NL)

Maria Pittman (SANTE G3, EU, observer)

CVET

Places visited during the mission 22 Nov 2017

Local Competent Authority, ASL, Mantova

Stefano Marangon, IZSVE

Lebana Bonfanti, IZSVE

Maurilio Giorgi, ATS Val Padana

Laura Gemma Brebzone, Regione Lombardia

Vincenzo Traldi, ATS Val Padana

Loris Zaghini, ATS Val Padana

Giorgio Grandi, ATS Val Padana

Piero Franzzi, Regione Lombardi

Pierdavide Lecchini, Ministero della Salute

Silvio Borelli, CVO, Ministero della Salute

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Maria Pittman (SANTE G3, European Commission observer)

Overview of scope: day 1

Preliminary description of the structure and size of the poultry industry and rural sector

Outbreak epidemiology

Laboratory management

H5N8 HPAI control strategies

Biosecurity measures

Overview of scope: day 2

Description of national and regional structures for animal health

Outbreak management (to include)

Disease suspicion/investigation

Confirmation (zoning, measures)

Culling and disposal

Biosecurity

Surveillance

Industry collaboration and communication

General remarks

IT faces a great challenge with an infrastructure comprised of people that work hard, competent, experienced and well motivated

Continuous review of efficacy of measures and industry engagement

Key conclusions

Preliminary description of the structure and size of the poultry industry and rural sector

Turkey industry comprises two major enterprises with one for chicken layers

Operator/farm owner generally only owns land, rest is owned by industry. One large turkey company owns some of their farms

Duck production is a minority component (largely indoor) of the poultry sector

Vertically integrated but with areas of DPPA; small FR/organic sector

- **Po-valley approximately 70 % of the national poultry production takes place here with an average density of 10.000 birds per km²**

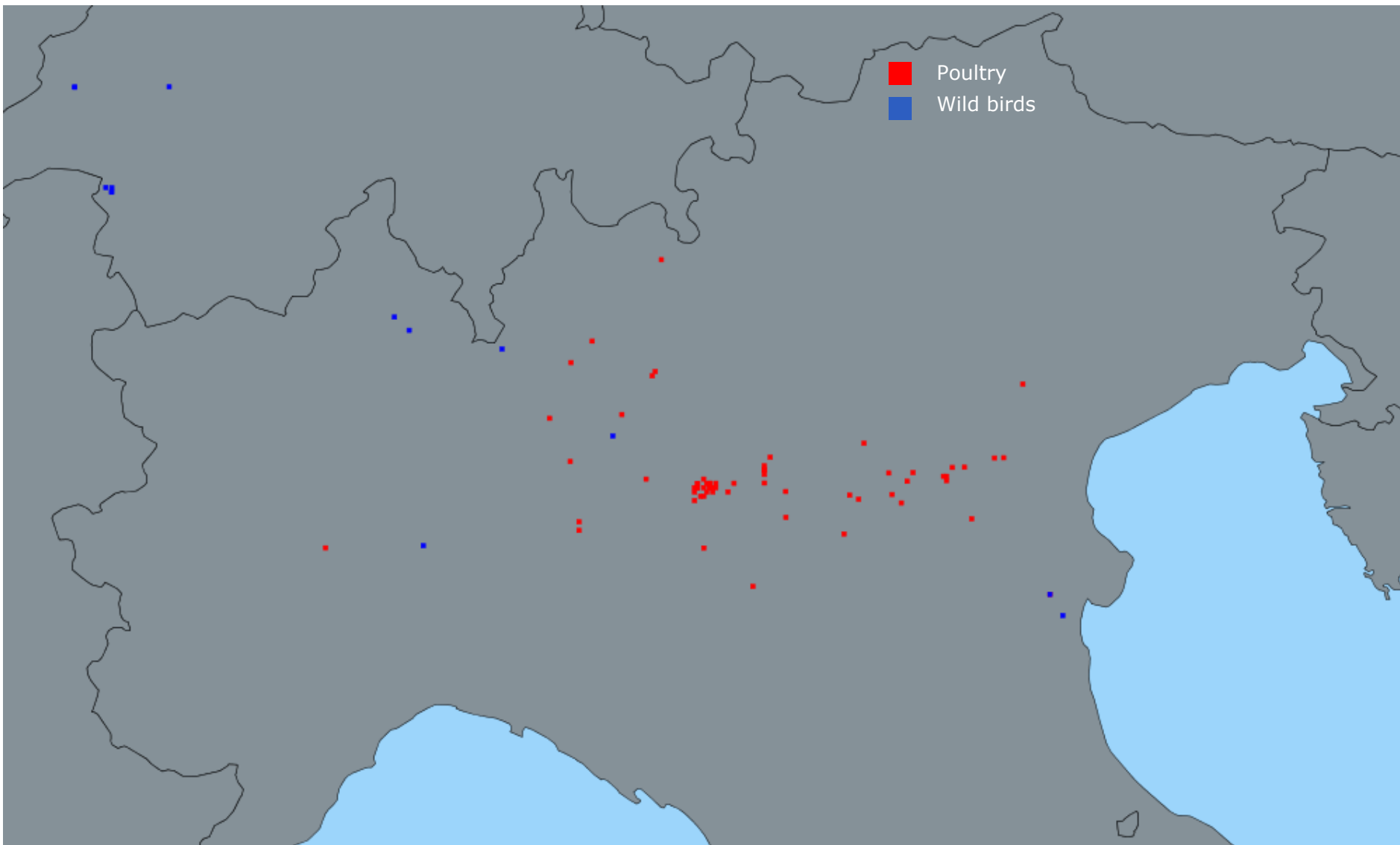
All commercial premises have to be registered and also non-commercial holdings more than 250 animals

Significant rural sector (55 million birds) – various activities including shows, markets, fairs but separated from industrial sector



European
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■ Poultry
■ Wild birds



Outbreak epidemiology

- *Two phases: 1: Jan-May – 16 poultry/7 wild bird cases; 2: July-Nov – 65 poultry/7 wild bird cases*
- *Wave 2 unique to IT that is not mirrored elsewhere in the EU- complex contributory local factors not fully understood*
- *First phase – broadly dispersed*
- *Second phase – more clustered*
- *Wild birds in phase 2 were indigenous species ie Mute Swan, Mallard*
- *Lack of coordinated/structured approach to passive surveillance in wild birds*
- *Generally spatial separation between cases in industrial and rural poultry/wild birds*

Outbreak epidemiology

A thorough epidemiological analyses is done at farm and zone level by IZS in close cooperation with field epidemiologists

Various genetic analyses is being applied to outbreak viruses to determine origins, providing insights to introduction pathways

NRL has identified two virus sublineages with distinct phasing and broadly some geospatial association

Information is being used to directly inform disease control decisions and priorities

The genetic data interpretation is complex and caution is required in drawing firm conclusions based on the type of analyses being done; the relatively limited virus diversity in contemporary H5N8 viruses and the small dataset of local wild bird strains

In second wave secondary spread occurred leading to some clusters (major cluster in Brescia; smaller clusters in Mantova, Vicenza, Bergamo)

Predominantly outbreaks in turkeys but other sector involvement

Modes of spread carry uncertainty but some risk factors have been strongly associated with proximity of farms (up to 1km) feed deliveries and depopulation activities (e.g. short distance aerogenic spread)

Laboratory management

- *All official labs directed through NRL IZSVe; standard EU methodology applied*
- *Private and official labs involvement (suspicion always with official samples to official lab)*
- *Generally lab capacity adequate but occasions where variation in procedure (i.e. pooling- ISO17025 accredited?) however diagnosis is rapidly achieved*
- *There is a system to ensure sample prioritisation consistent with control operation priorities*

H5N8 HPAI control strategies

Adapted measures according to the evolution of the outbreak

A system of risk areas is established with the aim of proportionality taking into account many complex factors and the need to keep business as usual operating without incurring undue disease risk

Increased measures including biosecurity but also taking account of legislation in force since 2005 (note less spread than 2000 showing a measure of success).

Pre-emptive culling premises selected by risk assessment but application in some areas affected by rendering capacity (Veneto) or culling capacity (Lombardy)

Restocking of turkey premises in Further Restriction Zone (FRZ) linked to biosecurity and geographical risk

H5N8 HPAI control strategies

Pre-movement testing rigorously applied

The defined geographical area for FRZ is based upon previous outbreaks, DPPA and landscape demographic but not wild bird population density even though strong linkage proposed for primary incursions

In addition, part of the territory in Lombardy is now classified in four different AI risk-level areas (low to high), according to the distribution of outbreaks, and the extent of protection, surveillance, and further restriction zones adding another layer of protective measures leading to complexity.

Outbreak management

Implementation of measures according to AI Directive

Rapid response to disease suspicions

Culling provided by a single contractor and averaged 5 days (including 1-2 days preparation); this contractor is also responsible for primary cleaning and disinfection

We were unable to verify the effectiveness of premise census in FRZ

Attestation for C&D are issued at the level of feed mill for delivery by vehicles, but rigour of C&D when leaving the farm is less clear

Application of biosecurity measures responsibility of owner not the production companies

Outbreak management

Variability in application of good biosecurity practice but note provided for in national regulation from 2005

National financial resources provided to support farmers to strengthen biosecurity (€10million) and to regional authorities for additional surveillance (€10million)

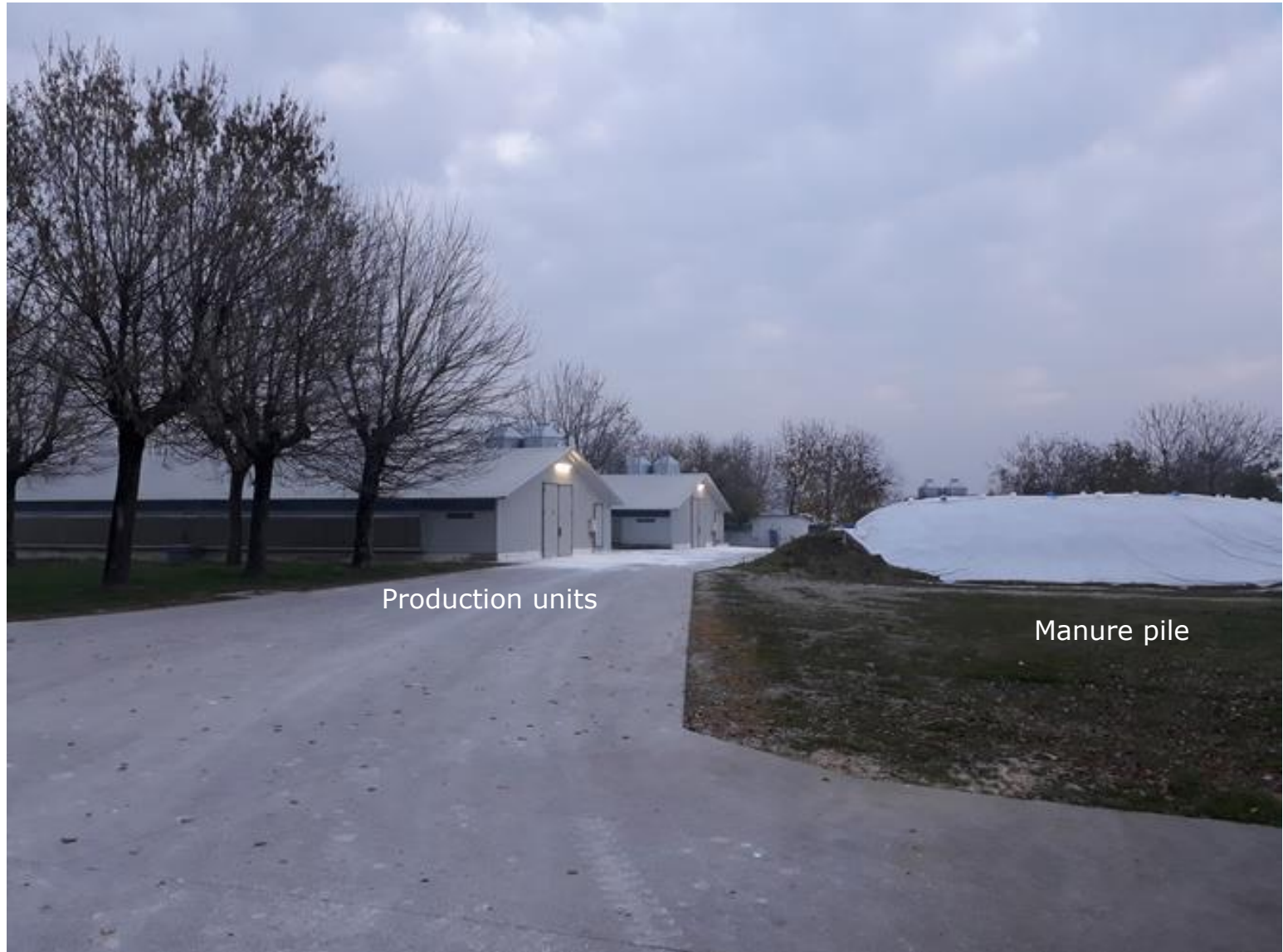
Strengthening of biosecurity approaches since October 2017 in local area visited

Failure to comply with regulations/biosecurity can lead to financial penalties

Wild bird surveillance ad-hoc no link with ornithological groups



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Production units

Manure pile

Recommendations

- 1. Develop optimal strategies to reduce the time to cull by considering separation of contractual tasks (i.e. culling and C&D)*
- 2. Develop and apply national and regional capability plan for rendering ensuring this is not a rate limiting step for application of control measures*
- 3. Use knowledge of critical risk pathways to apply stronger control points (i.e. disinfection of feed delivery vehicles)*

Recommendations

4. *Industry to formally develop a quality assurance programme with certification to ensure biosecurity code of practice compliance – with possibly financial incentives*
5. *Application of a structured programme for passive surveillance in wild birds considering wild bird demographic in relation to DPPA to better understand risk (formal mechanisms for collection)*
6. *Colleagues at IZSVe should continue to work with the EURL and others to develop robust consistent agreed approaches for genetic data analyses and interpretation that can be applied at both local and also EU level in informing decision making*

Recommendations

- 7. Review threshold for premise registration to reduce disease risk and resourcing to identify premises containing poultry during outbreaks (requires implementation) (note that Directive requires census of all poultry farms in the 3km protection zone, census in 10km radius required for commercial farms only); proposal to lower threshold from 250 to 50 heads is in legal consultation (Parliament)*
- 8. Ensure a standard sampling frame is applied consistently throughout the whole country but adapted to the evolving situation*

Recommendations

9. Extend good practice based on risk assessment for example currently identifying premises for pre-emptive culling or turkey restocking

10. Continue to impose restriction and pre-emptive culling in the protection zone (i.e. no movement to slaughter before zone imposition)

Thank you to all colleagues for their support during the visit

