



# Mission of the Community Veterinary Emergency Team (CVET) to Bulgaria

Team: Wim Pelgrim, Ian Brown, Stefano Marangon, Kaido Kroon (observer)

(16-18 January 2017)



#### **Objective:**

# to assist the Bulgarian Authorities evaluating the control of HPAI H5N8 outbreaks

COMMISSION DECISION of 28 February 2007 establishing a Community Veterinary Emergency Team to assist the Commission in supporting Member States and third countries in veterinary matters relating to certain animal diseases (2007/142/EC)



### **Basic information about Bulgaria** 110.000 square km, population: 7 millions





# General principles for control of avian influenza H5N8

- 1. Quick and proper response to new outbreaks: elimination the source (early warning, notification, suspicion, sampling, transport, lab, culling, rendering, cleaning and disinfection of the farm)
- 2. Prevention from introduction and spread
  - Protection and surveillance zone
  - Screening and tracing
  - Other regional or national measures



### **Basic conditions for proper control**

- Preparation: emergency plans, written procedures, trained personnel and other involved
- Collection and analysis of epidemiological data
- Testing and sampling strategies
- Laboratory capacity and quality
- Clear decisions and short chain of command
- Enforcement
- Communication



#### **Poultry production**

- In numbers of birds in broiler production is the most important poultry production system (237 farms with around in total 16 million animals).
- There are 257 duck farms in Bulgaria with an average of about 10.000 animals.
- Duck farming has an open structure, in number of contacts between farms and birds are kept outside during part of the fattening period.
- The structure of duck production facilitates in between farm spread of avian influenza.
- The production areas for each production type are broadly distinct.
- Duck production is concentrated around the Plovdiv, Stara Zagora and Haskovo areas.





#### **AI** in Bulgaria



- The first notification of a suspicion on a poultry holding was on December 14, 2016 in a flock of ducks imported as one day old birds (certificate December 5, 2016).
- Since that date the number of outbreaks has increased to 61, of which 50 are commercial farms in nine regions
- The majority of confirmed infections are in duck farms (47) concentrated in Plovdiv, a region with moderately high density of duck production.
- In numbers of animals duck (for fatty liver production), broiler and layer production are of most importance.
- There are four discrete findings of infected wild birds in separate regions, from which one concerns wrens (not reported before as infected with this virus).
- In Bulgaria there are regions with high concentrations of migrating wild water bird species.



#### **Outbreak management**

#### **Conclusions**

- The team of the Bulgarian Veterinary Service is very dedicated although they are under resourced.
- Under resourcing could hamper the effectiveness of disease outbreak control.
- Extreme climate conditions (snow) complicates control activities
- Local personnel are participating (killing and catching crew) with weaknesses in knowledge and supervision of good biosecurity practices.
- Reservation towards pre-emptive culling and flexibility in movement of ducks within control zones and to the outside, poses a significant risk for spread of infection.



#### **Outbreak management**

#### **Recommendations**

- Review and strengthen the implementation of the national operational protocol for poultry disease outbreak management, focussing on instructing and supervising local personnel (ie farm owners) carrying out control measures.
- Pre emptive culling should be considered for farms at risk.
- Consider implementing a single further restricted zone in the Plovdiv, Stara Zagora and Haskovo region to protect the rest of the country taking into account the AI virus spread in the affected area:
  - Decision making should consider economic and political arguments.
  - > Make use of farm and epidemiological data to identify the high risk area.
  - > Make an inventory of active poultry farms (location and number of birds)
  - > Separate means of transport, personnel, production chains
  - > In this area movement of birds other than to slaughter should be avoided
  - > Clinical inspection and premovement testing before essential movement
  - Consider early slaughter of poultry before birds have completed their production cycle
  - ➤ Ban of restocking.



## **Laboratory support**

#### **Conclusions**

- Current laboratory capability is insufficient to support outbreak management requirements.
- There is insufficient triage of fit for purpose laboratory tests.
- There is a lack of resources: staff, reagents and testing facilities.

#### **Recommendations**

- Urgent resources are required to purchase essential laboratory reagents and repair critical equipment.
- Reallocate the resources at laboratory level to focus on avian influenza until spread of infection under control.
- Increase laboratory throughput develop a laboratory protocol based on sample pooling of swabs from a single anatomical site (i.e. cloacal swabs only from ducks).
- Broad testing approaches should be applied to new disease suspicions outside restricted areas.
- Reduce the labour intensive use of virus isolation in eggs.
- Maintain current close working interaction with EURL.



# improve data collection and analysis

#### **Conclusions**

- Weaknesses in data management system (number and location of farms, animals, outbreaks, suspicions, etc.).
- Insufficient epidemiological analysis

#### Recommendations

- Need to improve data management.
- Need for epidemiologists to analyse data for decision-making in outbreak management (identification of areas and holdings at risk, modes of spread, forward tracing, etc.).



# Recommendations longer term

- Analysis of duck production (structure of duck production facilitates in between farm spread of avian influenza) systems. In this analysis not only veterinary aspects are relevant.
- Preparation and approval of guidelines for the application of appropriate biosecurity measures in these types of poultry production.
- Improve the information system and the epidemiological analyses of data to be used for decision-making.
- Develop a sustainable laboratory infrastructure to support notifiable disease investigation (facilities, trained staff, appropriate equipment including maintenance) and finances to purchase essential laboratory supplies.



# Thank you for your attention!