

Annex to:

EFSA (European Food Safety Authority), ECDC (European Centre for Disease Prevention and Control) and EURLAI (European Union Reference Laboratory for Avian influenza), Brown I, Mulatti P, Smietanka K, Staubach C, Willeberg P, Adlhoch C, Candiani D, Fabris C, Zancanaro G, Morgado J and Verdonck F, 2017. Scientific Report on Avian influenza overview October 2016 – August 2017. *EFSA Journal* 2017;15(10):5018. doi:10.2903/j.efsa.2017.5018

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Annex A – Secondary spread of HPAI during 2016/2017 epidemic crisis in Bulgaria

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- **Scope**

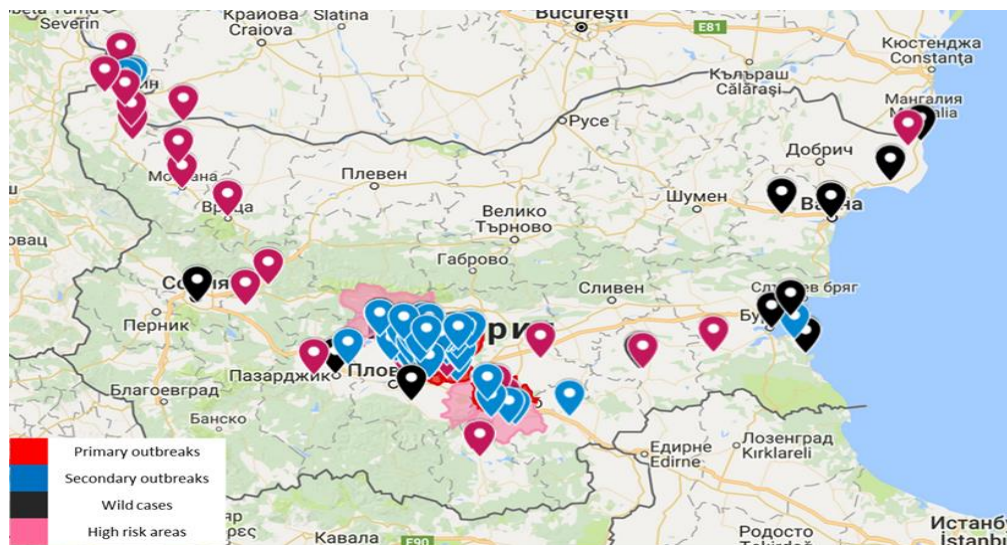
This document provides an overview of the available scientific evidence related to secondary spread of HPAI in Bulgaria during the autumn-winter epidemic (October 2016- April 2017). The structure of the document is based according to the key elements identified by the ad hoc EFSA working group (WG) on AI monitoring which are considered very relevant to understand HPAIV spread between poultry holdings. This document aims to support the WG in generating an overview of the scientific evidence which is relevant at EU level and that could be used by risk managers as basis for a lessons learnt activity.

- **Chronological overview of HPAI secondary spread**

The first secondary outbreak in poultry was confirmed in a backyard, in December 19, 2016, Vidin region (North western part of the country). Last secondary outbreak was detected in February 22, 2017.

More than half of outbreaks in domestic poultry (48 out of 72 outbreaks) were recorded as secondary outbreaks, in 5 regions of the country (out of 14 affected regions). Secondary spreading was notified especially in domestic waterfowl farms (duck farms), located mainly in three regions of the country (central part of the country). The peak of the epidemic was recorded in period from 25.12.2016 to 15.01.2017 (last week of 2016 and first two weeks of 2017).

The geographical distribution and chronological overview of the HPAI secondary spread in Bulgaria (N=48 outbreaks, 4 in backyards, 2 in laying hens, 42 in duck farms) are presented on Map 1 and Chart 1.



Map 1 – Geographical distribution of the HPAI secondary spread Bulgaria (December 2016-March 2017)

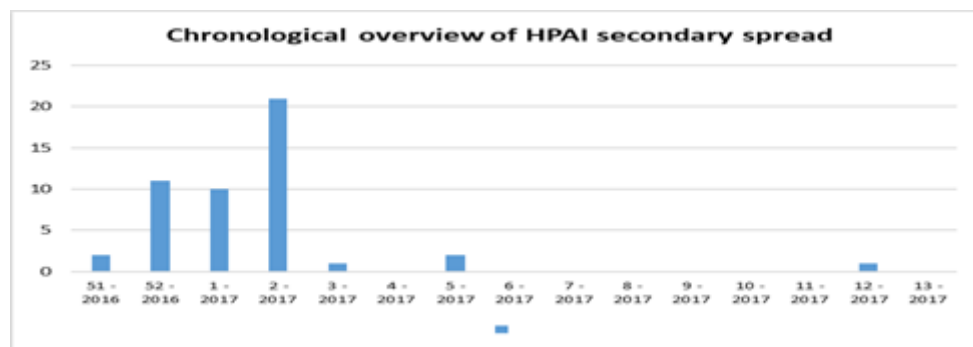


Chart 1 - Chronological overview of the HPAI secondary spread per week of detection, Bulgaria (December 2016-March 2017)

Epidemiological survey

The epidemiological survey concluded multiply pathways for the potential secondary spread between farms. The most cited sources were "contact with wild birds" (for 73% of the outbreaks); "introduction by staff, equipment, vehicles" (35 %), introduction of infected domestic birds into the farm (23%), and for 7 out of 48 of the outbreaks the source of infection was not identified. These outcomes were based on the epidemiological inquiry carried out by the regional official veterinarians.

- **Description of the production sector(s) that have been affected by secondary spread** (*Breeds and age groups of affected species, description of the production cycle, farm densities, transport of the animals (frequency, cleaning/disinfection practices), biosecurity level, etc.*)

95% of the secondary outbreaks in duck farms were specialized in forced-feeding, and reared the poultry outdoor.

The production is divided into three different cycles' steps:

- 1) one-day old ducklings are reared in indoor to 21-25 days age
- 2) The poultry are moved to an open air premise.
- 3) Around 12-14 weeks old, ducks are transferred to a closed force-feeding poultry house where they are forced-fed up to 14 days

The most affected domestic poultry category by the HPAI H5N8 were duck production (86 %), followed by backyards (10%) and commercial laying hen farms (4%).

Distribution of HPAI H5N8 outbreaks according to poultry production in infected farms is presented by Chart 3 (19/12/2016-30/03/2017, Bulgaria, N=48)

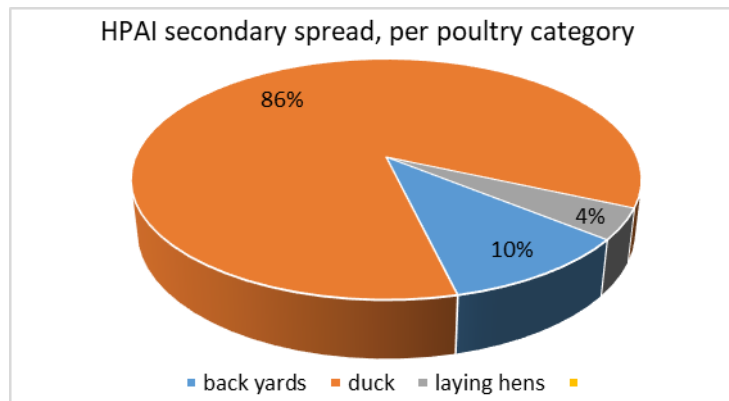


Chart 3 - Distribution of HPAI H5N8 outbreaks according to poultry production, Bulgaria (December 2016-March 2017)

- **Description of the detection of the secondary outbreaks.**
- **Surveillance and clinical signs**

The first secondary outbreaks were notified in two backyards holdings (mixed poultry species) that had supplied infected poultry. The suspicions were based on high mortality in laying hens mainly and clinical signs (quietness, extreme depression and swelling of the skin under the eyes) in a different poultry species (except duck). The pathological examination referred only to petechias and haemorrhages on the small intestine.

In 59 % of the clinical signs observed in the secondary outbreaks were drop in feed and water consumptions, depression followed by prostration and nervous signs, as a mortality rate in galliformes was 97-99%. Regarding the waterfowl, clinical signs were observed mainly in young poultry.

No official observations about the incubation period was cited, it was only suggested to be up to 6 days (and up to 2-3 days for galliformes)

Were serological positive animals detected without showing clinical signs?

All samples during the epidemic were virological tested only (20 cloacal swabs / flock).

Pre movement testing was required in duck farms and all samples tested were negative by PCR.

Serological investigation was not carried out in pre movement testing.

Were virological positive animals detected without showing clinical signs?

Yes, the virological positive animals were detected without showing clinical signs, during the routine active surveillance (a screening of apparently healthy populations) in restriction zones. Samples were taken not only in suspicions, but also in any other cases that official veterinarians considered it as appropriate.

An additional active surveillance was carried out in the high risk regions (central part of the country) where 76 duck farms were sampled (100% of the farms in operation at the time of sampling) and clinical signs were not detected during the sampling. Consequently, only 2 farms were laboratory confirmed as positive for H5N8.

What was the role of clinical surveillance in detecting secondary outbreaks?

Galliformes showed mainly clinical signs. Approximately 66 % of the outbreaks in ducks were detected by the active surveillance in three and ten km zones around the outbreaks ("outbreak related surveillance"). Following notification of disease suspicion of about 30 % of outbreaks were recorded (2 of them were in laying hen farms, all others in ducks). 4 % of infected farms were detected during the active surveillance (in the framework of the screening of apparently healthy populations).

As mentioned above, pre movement testing was required. Either no clinically positive or virological positive farms were recorded.

Movement to/from restriction zones was forbidden (only for slaughtering within the same or neighbour administrative region).

• Risk factor analysis:

The following factors were pointed out as factors contributing the secondary spread of the infection:

- outdoor keeping of poultry - all of the farms were outdoor farms and there were indications that wild birds might have access to the production units. It is also supported by the fact that many water sources with wild migratory waterfowls/high concentrations of migrating wild water bird species surround these affected farms.
- location and higher density of farms in an area - almost 80 % of duck farm production in country is located particularly in three regions of the country (central Bulgaria).
- production cycle and movements of poultry from one farm to another – in many cases the production is divided into the primary /rearing/sector and production sector resulting frequently movements of poultry from a farm to another at the different rearing periods. Also the production cycle and "gavage" period could be in multiply independently owned farms. Vehicles used to transport birds between farms and slaughterhouses are often owned by the slaughterhouse and act as a link between different production farms.
- biosecurity measures applied – the legislation regarding the biosecurity measures requires very minimum and basic measures, it is not as in laying hens (in terms of Salmonella control). Measures as: all in - all out, white/black zones, indoor/or in fenced areas (in terms of avoiding contact with wild birds) are optional measures. Farm personnel, feed lorries and equipment were also identified as contact mechanisms between farms, over which disease may transmit

Table 1: Examples of risk factors for AIV spread.

(Please indicate in the relevant columns if they had a role in the secondary spread of your country (Yes/No) and the relevant evidence (if available) NB: please compile the table only once, as a general overview of the secondary spread pathways that occurred in your country)

RISK FACTORS	Spread <u>within a flock</u>		Spread between holdings	
	Assumed to have played a role in secondary spread <u>within flocks</u> in your country (Yes/No)	Description available evidence	Assumed to have played a role in secondary spread <u>between holdings</u> in your country (Yes/No)	Description available evidence
Bedding: exposure to contaminated bedding	yes	Only suggestions	Could be	Only suggestions
Eggs: collection of contaminated eggs -	Not known	No observations		
Fallen stock and animal by-products: exposure to contaminated fall stock or ABPs	Yes	Indirect contamination due to collecting and handling the fallen stock, by-products, and their temporal storage within the farm. (t is very common for duck farms with low biosecurity measures in place)	Yes	Indirect contamination due to transport of dead birds. Only two rendering plants are in Bulgaria, both located in Eastern part of the country. They are served for disposal of all fallen stock and animal by-products collected from entire country.
Feathers, skin and down: exposure to contaminated feathers, skin or down	Not known			
Feed: exposure to contaminated feed	Not known			
Germinal products: use of contaminated semen	Not known			
Human activities: for instance workers having poultry at home, catching crews, persons going from one holding to another (e.g. egg collection), etc.	Yes	Based on the epidemiological surveys worker in a few cases owned poultry in their home. In addition, worker and owners were hunters.	Yes	
Live (non-poultry) birds: captive birds such as Passeriformes, birds of prey, Psittacines, i.e. birds as pets and other birds such as racing pigeons	Not known		Not known	
Live poultry: introduction/movement of infected animals	Yes, epidemiological survey showed such cases		Yes	Movement between epidemiologically linked farms
Manure: exposure to contaminated manure				

Other biosecurity weakness: for instance inadequate cleaning/disinfection clothing, footwear and/or equipment, absence of hygiene lock per production unit, inadequate carcass disposal, mixing ducks or geese with other poultry species, etc.	Yes		Yes	Epidemiological surveys showed that leaks in biosecurity may contribute to AI spread
Pharmaceuticals: use of contaminated vaccines	No			
Transport: inadequate cleaning and disinfection of transport vehicle and/or material	No (not within the farm)		Yes	Infected Vehicles
Wild birds: direct or indirect contact with infected wild birds	No (not within the farm)		Assumed to be, not proved by further laboratory investigation.	The majority of farms in the affected area were outdoor, surrounded by area with higher number migratory birds
Airborne diffusion	Not known			

Annex B – Secondary spread of HPAI during 2016/17 epidemics in France

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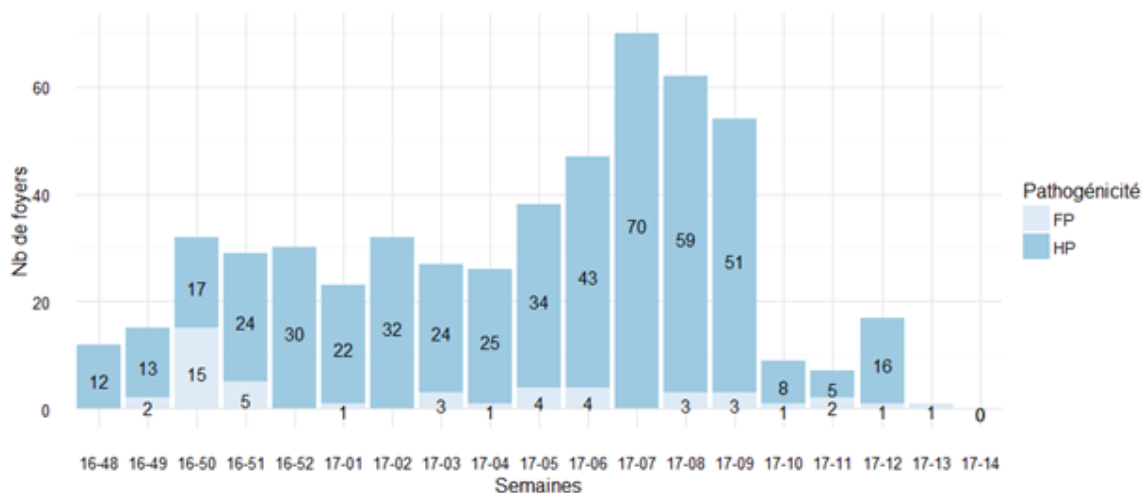
• Scope

This document provides an overview of the available scientific evidence related to secondary spread of HPAI in France during the autumn-winter epidemic (November 2016- April 2017). The structure of the document is based according to the key elements identified by the *ad hoc* EFSA working group (WG) on AI monitoring which are considered very relevant to understand HPAIV spread between poultry holdings. This document aims to support the WG in generating an overview of the scientific evidence which is relevant at EU level and that could be used by risk managers as basis for a lessons learnt activity.

- **Chronological overview of HPAI secondary spread** (*Description of the main events in chronological order (also indicating when prevention and control measures were implemented to manage the situation)*)
 - 11/26/2016: First case detected in captive wild bird = decoy birds in North of France
 - 12/02/2016: First outbreak in poultry in SW of France

Please refer to the table 1 at the end of the document for a complete overview of the main events and the control measures adopted.

Number of AI outbreaks in poultry farms according to virus pathogenicity in France (N=531 outbreaks)

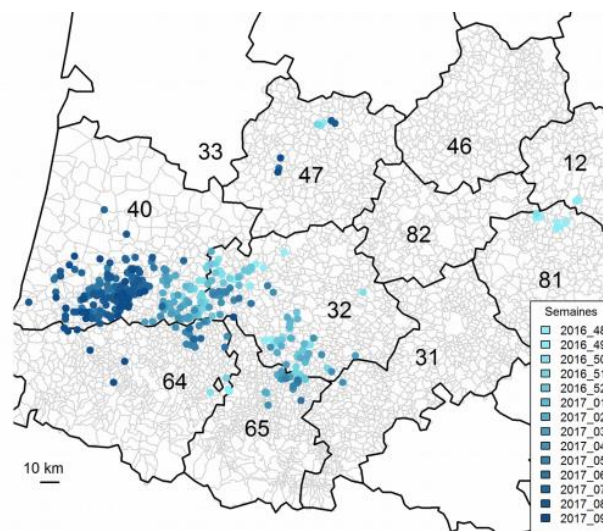


<https://www.plateforme-esa.fr/article/situation-de-l-influenza-aviaire-en-france-au-06042017-20h00>

A total of 484 outbreaks have been detected infected by H5Nx HP clade 2.3.4.4., including 348 cases of H5N8 HP in domestic poultry; 52 cases were reported in wildfowl and 3 cases in captive wild birds. Outbreaks were reported in nine departments (administrative area); cases in wildfowl were reported in six out of them. In six other departments, cases were only detected in wildfowl. In particular, 24 cases were detected in the Ain, an area in the south-east of France where most of poultry are raised outdoor; surveillance was reinforced in the restricted zones but no outbreak was detected among farms.

The epizooty spread from the Eastern part to the Western part of the infected area in about 6 weeks. The spreading was faster when the Western part of Gers (32) and the Landes (40) were affected because the density of free ranged ducks in these two areas is the highest in France. Due to the spreading of the virus, it was frequently impossible to determine whether a new outbreak was related to a new introduction of AI from wild birds or to a secondary transmission (even if according to Anses risk assessment, most of outbreaks were certainly due to direct or indirect transmission from farm to farm.). It was decided that a new case was notified to ADNS and WAHIS as a “secondary outbreak” only if a strong epidemiological link with a previous outbreak (as a transfer of animals) was identified during the epidemiological survey.

Chronologic and spatial distributions of HPAI H5N8 outbreaks in poultry and duck farms from 11/28/2016 03/06/2017 in France



Bronner et al, 2017, https://www.plateforme-esa.fr/sites/default/files/Art_%C3%A9pid%C3%A9mio_Plif_170306vf.pdf

Results of epidemiological surveys in 62 infected farms (conclusions given by the local veterinary services in charge of the survey):

- 13/62 of the cases: the local veterinary services could not identify a source of infection
- 8/49: a single source of introduction was identified as “certain” = introduction of infected domestic birds into the farm
- In 36 farms, at least one source of virus introduction was identified with a risk qualified as “high” to “very high”. The most frequent sources of introduction were “introduction of infected birds” (11/36), “contact with wildlife” (13/36), “vehicles” (14/36) and “staff (5/36)”. NB: several sources could be cited for one farm.
- Hatchery, litter, feed and equipment were seldom cited as a source of infection and the probability was assessed as low or very low.

NB: The origin of an outbreak is seldom identified with certainty by epidemiological investigation in outbreaks : indeed, identify risk factor would require specific studies such as control case studies. Besides, those results are based on investigator expertise only except for the introduction of infected birds from a contaminated farm (virological results were sometimes available for those cases). Therefore, they should be considered with caution.

- **Description of the production sector(s) that have been affected by secondary spread** (*Breeds and age groups of affected species, description of the production cycle, farm densities, transport of the animals (frequency, cleaning/disinfection practices), biosecurity level, etc.*)

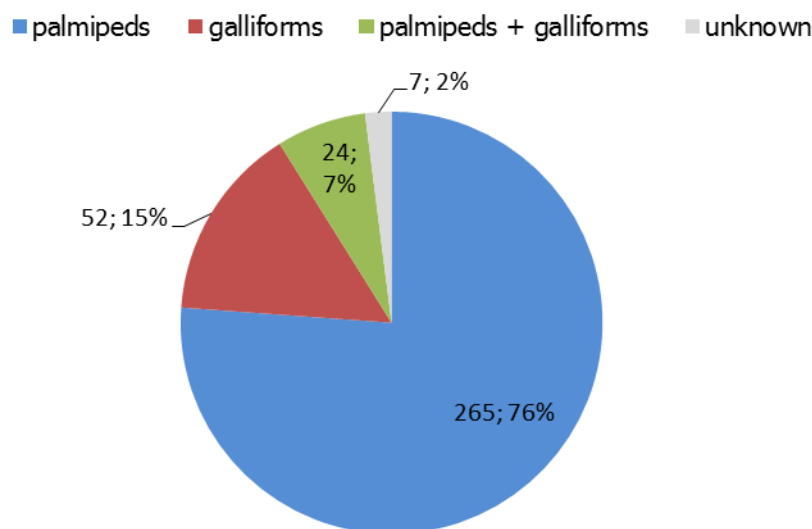
The secondary spread mainly affected duck farms specialized in forced-feeding for “foie-gras” production (80% of the outbreaks). There is a high density of duck farms in the affected area, mostly outdoor duck farms. The production of “foie-gras” (Mule ducks= Muscovy/Barbary*Pekin) is divided into three different steps: 1/one-day old ducklings are placed in indoor barn up to three weeks of age (“démarrage”) 2/ Three-week old ducks are moved to an open air run with a shelter (“pré-gavage”, up to 6000 ducks in a farm) 3/ Around 12 weeks old, ducks are transferred to a closed force-feeding poultry house where they are forced-fed up to 11-12 days (slaughter age : >95 days, up to 1000 ducks in a house). Ducks are frequently moved from a farm to another at the different rearing periods, entailing a heavy flow of duck transport in the affected area. Specializing different farms in one step of the duck production (“démarrage”/“pré-gavage”/forced-feeding) makes possible to do cost-savings, to increase the production and to obtain a higher profitability for “foie gras” production. In the affected area, most of the poultry farms (rearing broiler, turkey or guinea fowl) are outdoor farms in close neighborhood with duck farms.

Since 2016, new biosecurity rules entered into force in all French poultry farms. The main points are: all in/ all out in a poultry house, no species mixing inside a poultry house (palmipeds-galliforms), ante-room for each unit (one or several poultry houses with a single type of production and the same age), cleaning and disinfection after each flock. Most of those rules are already applied but the “pré-gavage” farms have extra-time for building concrete building with an ante-room in place of the shelter currently used in SW of France.

New regulation on biosecurity in duck and poultry farms (in French):

<https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000032000273>

Distribution of HPAI H5N8 outbreaks according to poultry production in infected farms (2016-2017, France, N=348 outbreaks, 11/28/2016 04/03/2017 in France)



- **Description of the detection of the secondary outbreaks, Surveillance and clinical signs**

Farmers detected the first clinical signs within the 2-3 days before the beginning of the bird mortality. The first signs were a drop in feed and water consumptions followed by prostration and nervous signs (torticollis, difficulties for walking). In some cases, the signs were hard to observe and not specific. The mortality rate observed on the first 80 outbreaks ranged from 1 to 100% in galliforms and up to

71% in palmipeds (Communication from Dr Jean-Luc Guérin). Based on observations in 7 duck farms, the incubation time is from 6 to 8 days (see links below).

<http://plateforme-esa.fr/article/investigations-complementaires-dans-les-foyers-en-janvier-2017-par-l-anes-prelevements-d>.

<http://plateforme-esa.fr/article/influenza-aviaire-hautement-pathogene-en-france-en-lien-avec-le-virus-h5n8-premiers-elements>

Were virological positive animals detected without showing clinical signs?

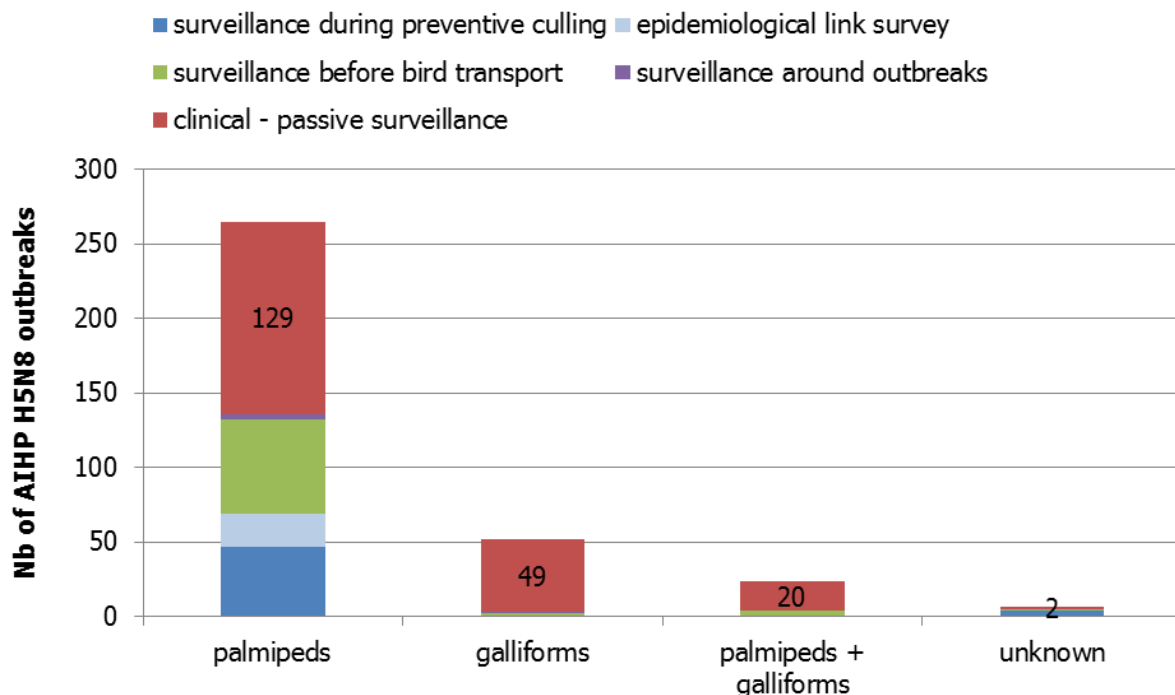
In ducks, 47 out of the 265 outbreaks of HPAI H5N8 were detected by virological testing (60 cloacal swabs / flock) when the ducks were tested at the abattoir (preventive culling). Before being sent to the abattoir for the preventive culling, all duck batches were visited at the farm by a vet within the 3 days before culling. All the batches detected positive at the abattoir were fit for transport according to the vet visit at the farm (no clinical sign). No serological testing was performed on the birds culled for preventing AI spreading.

What was the role of clinical surveillance in detecting secondary outbreaks?

In contrary to the previous episode in 2015-2016, palmipeds show clinical signs once infected by H5N8 virus. About one half (48%) of the outbreaks were detected by passive surveillance, especially in broiler flocks (43/46).

Modalities of HPAI H5N8 outbreak detection in poultry farms in France (2016-2017, N= 348 outbreaks)

- "Epidemiological link survey" refers to the epidemiological investigation made in outbreaks, with the objective to identify farms that may have infected this outbreak and / or farms that may have been infected by this outbreak.
- "Surveillance before bird transport" refers to flocks sampled before transport to another farm or to the abattoir but not for preventive culling.
- "Surveillance around outbreak": clinical surveillance (galliforms) and virological surveillance (ducks) of flocks within the 1km and 3km around an outbreak (neighbouring flocks)



- **Risk factor analysis:**

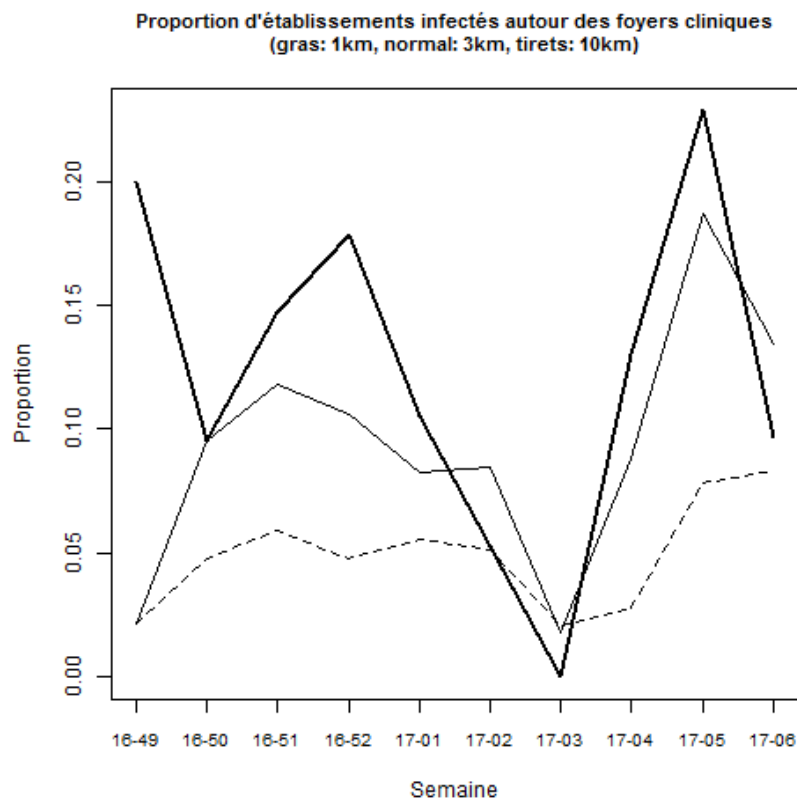
What are the key risk factors for spreading the AIV within a flock/between holdings?

Within a flock: no specific study was carried out on intra-flock transmission during the episode. Observational studies on cases showed that up 90 - 100% of ducks became seropositive in infected flocks within 5 days.

Up to now no case-control study has been carried out to identify RF for AI diffusion. As a consequence, information in Table 2 is mainly based on field observations and no formal evidence is available for most of the potential RF listed. In addition several studies were conducted to analyse the spread of the disease:

- a descriptive analysis consisted in estimating the distance between outbreaks detected during one week w and outbreaks detected before. Based on these results, it appears that most outbreaks were detected within a 10 km radius from a previous outbreak. However, seven outbreaks out of 30 were detected more than 10 km away from a previous outbreak during the first week of February (Table 3).
- the incidence rate was calculated for each clinical outbreak as the proportion of new farms infected up to one week after its stamping out, within a 1 to 10 km radius from it. The incidence rate was quite low (not in favor of a main role of airborne transmission), but increased during the last week of January and first week of February (Figure 1).
- the spatio-temporal distribution of outbreaks that occurred in France between November 2016 and April 2017 was examined. Results indicated the presence of significant spatio-temporal interaction between outbreaks at the beginning of the epidemic within a window of 8 km and 13 days and that this interaction disappeared towards the end of the epidemic, likely related to pre-emptive culling strategies. Also, five spatio-temporal clusters of outbreaks were identified in the main poultry producing areas, going sequentially from East to West. Finally, the disease propagation was estimated at an average spread rate of 5.5 km/week, and increased from the beginning of February 2017 (Claire Guinat et al., submitted).

Proportion of outbreaks within a 1 to 10 km radius from clinical outbreaks
 Bold: 1km radius, thin: 3km radius, dashed: 10km radius



These data suggest that the infection spread mostly among the palmiped sector by vehicules, persons (indirect transmission). To a lesser extent, some farms may have been infected by airborne transmission or by wildlife. Several research projects have been launched (and are still on-going) to confirm these hypothesis and quantify the effect of these potential risk factors (i.e. case-control study at the farm level, spatial analysis of agro-environmental risk factors). **References** (to available scientific evidence, even if not in English)

Bronner et al., 2017. <https://plateforme-esa.fr/article/influenza-aviaire-hautement-pathogene-en-france-en-lien-avec-le-virus-h5n8-premiers-elements>

Guinat C et al., submitted. Spatio-temporal Patterns of Highly Pathogenic Avian Influenza Virus subtype H5N8 spread, France, 2016-2017

Table 1: Overview of main communication actions

Date	Event that triggered action	Type of action	Target audience (if applicable)
16/11/2016	wild bird cases in neighbouring country with France (Germany, Switzerland)	Due to the risk of infection in wildlife, increase of the epizootic risk from negligible to moderate throughout the country, and from moderate to high in wet areas (at risk areas). In wetland areas, confinement of backyard flocks with no derogation, confinement of commercial flocks (with derogation under defined conditions), and strengthening biosecurity. reinforcement of wildfowl surveillance : clinical surveillance, implementation of an active surveillance targeted on staging areas for migrating birds In high risk areas, interdiction of bird exhibition and assembly, pigeon competition and release of game birds. Interdiction of participation in such events for birds coming from high risk areas. Restriction of the use of decoy birds for waterfowl hunting	Backyard keeper, poultry farmers, game breeder
26/11/2016	First case detected in captive wild bird = decoy birds (dept 62)	epidemiologic investigation and stamping out of all the decoy birds in the outbreak and in a contact owner of decoy birds ; implementation of a ten kilometers restriction zone to investigate poultry flocks in the area	
02/12/2016	First poultry outbreak (dept 81)	PZ (3km) and SZ (10 km) implementation, stamping out in the infected farms, prohibition of bird movement in the PZ and SZ, prohibition of hunting in PZ/SZ, epidemiological investigation	
04/12/2016	the second poultry outbreak (dept 81)	same actions around the new outbreak	
05/12/2016		Increase of the epizootic risk from moderate to in all the country: application of the measures described for high risk area	Backyard keeper, poultry farmers, game breeder
	many outbreaks in the dept 32, 47, 65	Stamping out of five contact flocks in three departments (32, 47, 65) which came from the farm where the second outbreak occurred. The birds were transferred before the adoption of the restriction zone. Adoption of PZ (3km) and SZ (10 km) around each of these secondary outbreaks with restriction of movements and epidemiological investigation, stamping out in the infected farms, prohibition of bird movements in PZ and SZ and prohibition of hunting in PZ/SZ. Further secondary cases were detected in all the PZ and SZ, particularly in areas where densities of palmiped farms were high (dept 32), leading to a progressive development of the areas under restrictions from East to West. Initially some departments adopted a complete ban on hunting but the ban became limited to waterfowl hunting only. In the restricted areas, movements of birds to slaughterhouse were permitted, with clinical inspection at farm for galliform flocks and negative PCR results for palmiped flocks. Palmipeds at their last stage of growing (12 to 15 weeks) were allowed to move to force-feeding units after negative PCR test. The transport was allowed only if 1/ the force-feeding units were in the restriction zone and if 2/ the slaughterhouse was in the restricted zone or close to. Specific biosecurity measures were applied for these movements.	

04/01/2017	89 outbreaks extension of AI infection in many poultry farms in the South West	<p>Extension of outbreaks towards West (departement 40 and 64), large contiguous areas under restriction with high densities of duck farms.</p> <p>Implementatin of the preventive culling strategy in the large area under restriction. Slaughters targeted mostly free-range palmipeds in PZ. Preventive culling was organised in slaughterhouses, transports to the slaughterhouses were subject to specific biosecurity measures.</p> <p>Implementation of a large temporary control zone (TCZ) around the large SZ/PZ to control movements and introduction of palmipeds.</p> <p>In low duck density areas (East of 32, 81, 47) the spreading of the infection was under control.</p>	
10/02/2017	Anses opinion	<p>Release of the Anses opinion on the preventive culling strategy. Culling of all commercial poultry flock within a radius of 1km from outbreaks, extension of preventive culling for palmipeds within a distance of 3 to 10 km from an outbreaks depending on the finding of secondary cases or not.</p> <p>Meanwhile, in the Eastern parts of the restriction areas where the epidemic stopped (outbreak depopulated, 3 weeks without a case, no suspicion and surveillance of commercial farms fulfilled) the galliform farms were allowed to introduce new flocks.</p>	
	Anses opinion	<p>Ministerial act (31/3/17) to implement a collective fade out of palmiped farms in the large restriction area (covering parts of departments 31,32,40, 64,65) until the 29th of May, cleaning and disinfection of all the emptied poultry farms, authorization to keep birds only if they tested negative for AI based on regular testing.</p> <p>Specific biosecurity for the transport of palmipeds.</p> <p>Increased level of biosecurity measures for breeding flocks.</p> <p>Surveillance of palmipeds after their reintroduction in the restriction area (after the 29th of May).</p>	

Table 2: Examples of risk factors for AIV spread.

(Please indicate in the relevant columns if they had a role in the secondary spread of your country (Yes/No) and the relevant evidence (if available).

NB: please compile the table only once, as a general overview of the secondary spread pathways that occurred in your country)

RISK FACTORS	Spread <u>within a flock</u>		Spread <u>between holdings</u>	
	Assumed to have played a role in secondary spread <u>within flocks in your country (Yes/No)</u>	Description available evidence	Assumed to have played a role in secondary spread <u>between holdings in your country (Yes/No)</u>	Description available evidence
Bedding: exposure to contaminated bedding	yes	Cloacal excretion Open-air range positive in rRT-PCR	Not known	Most of the farms have their own supply for litter. Used litter (manure) has to be composted for 60 days before spreading
Eggs: collection of contaminated eggs	Only a few number of table egg or hatching egg farms infected by HPAI			
Fallen stock and animal by-products: exposure to contaminated fall stock or ABPs	Yes	No specific study	Yes but indirect due to transport of dead-culled birds	Culled birds were discarded in specific units (knackery) Risk of diffusion during dead bird transport but trucks were covered
Feathers, skin and down: exposure to contaminated feathers, skin or down	Yes			
Feed: exposure to contaminated feed	Not known		Not known	Risk identified: feed truck traffic from farm to farm
Germinal products: use of contaminated semen	Not known Only a few number of farms with breeding duck or breeding broiler infected by HPAI			
Human activities: for instance workers having poultry at home, catching crews, persons going from one holding to another (e.g. egg collection), etc.	Yes	Epidemiological surveys showed that several poultry houses on the same farm could be infected due to poor biosecurity on the farm	Yes	Epidemiological surveys showed that human activities may contribute to AI spread
Live (non-poultry) birds: captive birds such as Passeriformes, birds of prey, Psittacines, i.e. birds as pets and other birds such as racing pigeons	No		No	Such a case was not reported in epidemiological surveys carried out in infected farms

Live poultry: introduction/movement of infected animals	Not relevant for intra-flock spreading		Yes	High number of bird exchanges between duck farms: some epidemiological links were observed between infected farms due to duck transfers
Manure: exposure to contaminated manure	See bedding material			
Other biosecurity weakness: for instance inadequate cleaning/disinfection clothing, footwear and/or equipment, absence of hygiene lock per production unit, inadequate carcass disposal, mixing ducks or geese with other poultry species, etc.	Yes		Yes	Epidemiological surveys showed that leaks in biosecurity may contribute to AI spread
Pharmaceuticals: use of contaminated vaccines	No, no vaccination against AI			
Transport: inadequate cleaning and disinfection of transport vehicle and/or material	Not relevant for intra-flock spreading		Yes	Trucks and crates for duck transports are proven to be sometimes positive after C&D (positive rRT-PCR AI)
Wild birds: direct or indirect contact with infected wild birds	Not relevant for intra-flock spreading		Not evaluated	Wild birds infected near the outbreaks Most of the outbreaks occurred in free-ranged poultry but this housing system is the most common in the affected area
Airborne diffusion	AI RNA were found (rRT-PCR) in air samples taken downwind to poultry houses housing infected birds (up to 100m from the houses).			

Table 3:

Week number	Number of outbreaks according to the distance to the nearest outbreak detected previously (farms epidemiologically linked excluded from the analysis)			
	0-1km	1-3km	3-10km	>10km
16-48	0	0	0	0
16-49	1	0	3	1
16-50	3	0	5	2
16-51	2	8	8	1
16-52	4	15	7	0
17-01	5	8	4	2
17-02	4	10	12	1
17-03	2	7	8	0
17-04	3	7	9	2
17-05	1	10	12	7
17-06	9	19	10	1
17-07	18	25	14	1
17-08	6	6	3	0

Annex C – Applied prevention and control measures on avian influenza Austria

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1. Scope

This document provides a brief overview of specific prevention and control measures applied in Austria during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
02/11/2016	First wild bird findings at the lake Constanze (Bodensee): mainly ducks but also seagulls and curlews	Increasing awareness, increased sampling	Poultry associations, AGES/NRL, Federal and local Authorities
08/11/2016	5 samples confirmed positive for HPAI, subtype H5N8 using RT-PCR	International notification (ADNS, WAHID) Information of the national experts and the public Audioconference with Germany and Switzerland (Lake Constanze is bordered by Germany, Switzerland and Austria) in order to harmonize measures	EU, neighbouring countries
09/11/2016		Definition of a high risk area around the Austrian part of Lake Constanze Increasing awareness – information provided at the homepages of AGES and BMGF	Poultry associations, general public
09/11/2016	First suspicion of HPAI in domestic birds located at the same region	Sampling and sending to NRL; ban of the holding; drafting of protection and surveillance zone	NRL, Federal and local Authorities
10/11/2016		Definition of a high risk zone (11 municipalities) in the Federal Province of Vorarlberg – Annex of	General Public

		Austrian Decree on eradication of AI 2007 (1 st amendment)	
11/11/2016	Confirmation of first outbreak of HPAI in domestic birds	Protection and surveillance zone in force; order to cull all birds of the premise and to clean and disinfect the holding	
12/11/2016		Killing of all poultry of infected farm; start of cleaning and disinfection measures, epidemiological investigations, start of investigation of farms within zones	
16/11/2016		Commission Implementing Decision (EU) 2016/2012: Protection zone till December 14 and Surveillance zone till December 23	
23/11/2016		Definition of a high risk zone (18 municipalities) in the Federal Province of Vorarlberg – Annex of Austrian Decree on eradication of AI 2007 (2 nd amendment)	General Public
25/11/2016		Definition of a high risk zone in the Federal Provinces of Vorarlberg (18 municipalities), Oberösterreich (1 district, 50 municipalities), Salzburg (28 municipalities) and Steiermark (3 municipalities) – Annex of Austrian Decree on eradication of AI 2007 (3 rd amendment)	General Public
28/11/2016	Wild birds: 21 out of 51 samples positive	2 high risk areas within Austria (Vorarlberg – Lake Constanze and Salzburg/Steiermark) where poultry has to be kept indoor, increased biosecurity, increased duty of notification	All poultry farmers (including hobby-farmers)
03/12/2016		Definition of a high risk zone in the Federal Provinces of Vorarlberg (18 municipalities), Oberösterreich (4 districts, 20 municipalities), Salzburg (28 municipalities) and Steiermark (3 municipalities) – Annex of Austrian Decree on eradication of AI 2007 (4 th amendment)	General public
07/12/2016		Definition of a high risk zone in the Federal Provinces of Vorarlberg (18 municipalities), Oberösterreich (4 districts, 20 municipalities), Salzburg (2 districts) and Steiermark (3 municipalities) – Annex of Austrian Decree on eradication of AI 2007 (5 th amendment)	General public
29/12/2016	Outbreak AI in a backyard flock in Slovakia near the Austrian Border	Surveillance zone in the Federal Province of Niederösterreich established due to the outbreak in SK; information of the European Commission on the surveillance zone	EU, Member Countries

10/01/2017		Definition of a high risk zone in the whole territory of Austria – Annex of Austrian Decree on eradication of AI 2007 (6 th amendment)	General public
16/01/2017	Suspicion of outbreak in domestic birds in the East of Austria (Federal Province of Burgenland)	Ban of the holding (hobby farm with 108 domestic birds, 49 of them dead), sampling, preparation of protection and surveillance zone	
17/01/2017	Confirmation of second outbreak in domestic birds	Installation of zones,	
18/01/2017		notification of second outbreak in Austria via ADNS, WAHID, Killing of all poultry of infected farm; start of cleaning and disinfection measures, epidemiological investigations, start of investigation of farms within zones	
10/02/2017	Outbreak AI in a backyard flock in the Czech Republic near the Austrian Border		
13/02/2017		Surveillance zone in the Federal Province of Niederösterreich established due to the outbreak in CZ	
14/02/2017		Information of European Commission on the surveillance zone in Niederösterreich	EU, Member Countries
17/02/2017	Outbreak AI in a backyard flock in Slovakia near the Austrian Border		
20/02/2017		Surveillance zone in the Federal Province of Niederösterreich established due to the outbreak in SK; information of the European Commission on the surveillance zone	EU, Member Countries
06/03/2017	Suspicion of outbreak in captive birds of Zoo Vienna	Increased biosecurity measures within the Zoo Vienna, Information of the public, increased information and education of the staff of the zoo	General public
07/03/2017	Confirmation of first outbreak in captive birds in Austria		General public
10/03/2017	First outbreak in captive birds in Austria	Culling of all 19 pelicans of the Zoo Vienna, cleaning and disinfection	
22/03/2017	First outbreak in captive birds in Austria	Definition of sampling plan of captive birds of Zoo Vienna	Local authority, NRL
23/03/2017		Cancellation of high risk zone in the whole territory of Austria – Annex of Austrian Decree on eradication of AI 2007 (7 th amendment)	General public
24/03/2017		Announcement on increased biosecurity measures in order to avoid spread of AI-virus	General public
24/04/2017	First outbreak in captive birds in Austria	Lifting of the ban of Zoo Vienna after two serological investigations of 76 captive birds according to the Diagnostic Manual of the European Commission (two times: all investigations with negative	

		results)	
30/05/2017		Cancellation of announcement on increased biosecurity measures in order to avoid spread of AI-virus	General public

(The trigger for the first set of control measures is indicated as 'First HPAI positive in wild birds'. Where there any previous measures applied in response to the epidemiological situation in other neighbouring Countries (e.g. biosecurity)?)

In Austria, we have a permanent animal disease expert group. All relevant information (e.g. urgent faxes from the European Commission) concerning any outbreak in other Member States is forwarded immediately to the expert group and to concerned stakeholders.

3. Increasing awareness of the stakeholders and the general public

The departments for communication both at the AGES and at BMGF supported in information services. In Austria, an expert group on animal disease eradication is installed. Within this expert group, several task forces are dealing with highly contagious diseases. The task force AI met on a regular basis and organized webinars addressed to all interested stakeholders and Official Veterinarians.

FAQ's: https://www.bmgf.gv.at/home/Service/FAQ_Haeufige_Fragen_/Gefluegelpest_Vogelgrippe

Information to the public on the situation in Austria and the spread of the disease in Europa: <https://www.verbrauchergesundheit.gv.at/tiere/HPAI.html>

Information to the public on Avian Influenza: <https://www.ages.at/themen/krankheitserreger/vogelgrippe/>

4. Housing order

The housing order was subjected to a municipality/district at the beginning and to the whole territory of Austria at the end.

Date (in force)	Legal basis	Federal Province	Districts/Municipalities
10/11/2016	BGBl II 308/2016 1.Änderung der Geflügelpest-Verordnung 2007	Vorarlberg	Bregenz, Fußach, Gaißau, Hard, Höchste, Hörbranz, Kennelbach, Lauterach, Lochau, Lustenau, Wolfurt
23/11/2016	BGBl II 343/2016 2.Änderung der Geflügelpest-Verordnung 2007	Vorarlberg	Altach, Bregenz, Feldkriech, Fußach, Gaißau, Hard, Höchst, Hohenems, Hörbranz, Kennelbach, Koblach, Lauterach, Lochau, Lustenau, Mäder, Meiningen, Rankweil, Wolfurt
25/11/2016	BGBl II 351/2016 3.Änderung der Geflügelpest-Verordnung 2007	Vorarlberg	Altach, Bregenz, Feldkriech, Fußach, Gaißau, Hard, Höchst, Hohenems, Hörbranz, Kennelbach, Koblach, Lauterach, Lochau, Lustenau, Mäder, Meiningen, Rankweil, Wolfurt
		Oberösterreich	District Braunau am Inn

			<p>and the municipalities Altmünster, Antiesenhofen, Attersee, Bad Goisern am Hallstättersee, Bad Ischl, Berg im Atterau, Brunnenthal, Ebensee, Engelhartzell, Esternberg, Freinberg, Geinberg, Gmunden, Gosau, Grünau im Almtal, Hallstatt, Innerschwand am Mondsee, Kirchdorf am Inn, Lenzing, Mondsee, Mörschwang, Mühlheim am Inn, Nußdorf am Attersee, Oberhofen am Irrsee, Obernberg am Inn, Obertraun, Oberwang, Rainbach im Innkreis, Reichersberg, Schardenberg, Schärding, Schörfing am Attersee, Seewalchen am Attersee, St. Florian am Inn, St. Georgen bei Obernberg, St. Georgen im Attergau, St. Lorenz, St. Marienkirchen bei Schärding, St. Wolfgang im Salzkammergut, Steinbach am Attersee, Straß im Attergau, Suben, Tiefgraben, Traunkirchen, Unterach am Attersee, Vichtenstein, Weissenkirchen im Attergau, Wernsteim am Inn, Weyregg am Attersee, Zell am Moos</p>
		Salzburg	<p>Anthering, Bergheim, Berndorf bei Salzburg, Bürmoos, Dorfbeuern, Elixhausen, Eugendorf, Faistenau, Fuschl am See, Göming, Henndorf am Wallersee, Hintersee, Hof bei Salzburg, Köstendorf, Lamprechtshausen, Mattsee, Neumarkt am Wallersee, Nußdorf am Haunsberg, Oberndorf bei Salzburg, Obertrum am See, Schleedorf, Seeham, Seekirchen am Wallersee, St. Georgen bei Salzburg, St. Gilgen, Straßwalchen, Strobl, Thalgau</p>
		Steiermark	<p>Altaussee, Bad Aussee, Grundlsee</p>

03/12/2016	BGBl II 361/2016 4.Änderung der Geflügelpest-Verordnung 2007	Vorarlberg	Altach, Bregenz, Feldkriech, Fußach, Gaißau, Hard, Höchst, Hohenems, Hörbranz, Kennelbach, Koblach, Lauterach, Lochau, Lustenau, Mäder, Meiningen, Rankweil, Wolfurt
		Oberösterreich	Districts Braunau am Inn, Gmunden, Kirchdorf an der Krems, Vöcklabruck and the municipalities, Antiesenhofen, Brunnenthal, Engelhartszell, Esternberg, Freinberg, Geinberg, Kirchdorf am Inn, Mörschwang, Mühlheim am Inn, Oberberg am Inn, Rainbach im Innkreis, Reichersberg, Scharfenberg, Schärding, St. Florian am Inn, St. Georgen bei Oberberg, St. Marienkirchen bei Schärding, Suben, Vichtenstein, Wernstein am Inn
		Salzburg	Anthering, Bergheim, Berndorf bei Salzburg, Bürmoos, Dorfbeuern, Elixhausen, Eugendorf, Faistenau, Fuschl am See, Göming, Henndorf am Wallersee, Hintersee, Hof bei Salzburg, Köstendorf, Lamprechtshausen, Mattsee, Neumarkt am Wallersee, Nußdorf am Haunsberg, Oberndorf bei Salzburg, Obertrum am See, Schleedorf, Seeham, Seekirchen am Wallersee, St. Georgen bei Salzburg, St. Gilgen, Straßwalchen, Strobl, Thalgau
		Steiermark	Altaussee, Bad Aussee, Grundlsee
07/12/2016	BGBl II 368/2016 5.Änderung der Geflügelpest-Verordnung 2007	Vorarlberg	Altach, Bregenz, Feldkriech, Fußach, Gaißau, Hard, Höchst, Hohenems, Hörbranz, Kennelbach, Koblach, Lauterach, Lochau, Lustenau, Mäder, Meiningen, Rankweil, Wolfurt
		Oberösterreich	Districts Braunau am Inn, Gmunden, Kirchdorf an der Krems, Vöcklabruck and the municipalities,

			Antiesenhofen, Brunnenthal, Engelhartzell, Esternberg, Freinberg, Geinberg, Kirchdorf am Inn, Mörschwang, Mühlheim am Inn, Obernberg am Inn, Rainbach im Innkreis, Reichersberg, Schardenberg, Schärding, St. Florian am Inn, St. Georgen bei Obernberg, St. Marienkirchen bei Schärding, Suben, Vichtenstein, Wernstein am Inn
		Salzburg	Districts Salzburg-Stadt, Salzburg-Umgebung
		Steiermark	Altaussee, Bad Aussee, Grundlsee
10/01/2017	BGBl II 10/2017 6.Änderung der Geflügelpest-Verordnung 2007	Das gesamte Bundesgebiet der Republik Österreich	
25/03/2017	BGBl II 84/2017 7.Änderung der Geflügelpest-Verordnung 2007	Derzeit keine Gebiete mit erhöhtem Geflügelpest-Risiko	

Obligatory housing of all poultry was ordered by amendment of the annex 1 of „Geflügelpest-Verordnung 2007“. The criteria used were:

- Findings of dead wild birds
- Density of domestic birds
- Geographical situation and risk (near open water, near slaughterhouses)

All amendments have been discussed within the task force AI.

5. Strengthening biosecurity measures (other than housing order)

As soon as high risk areas are defined, biosecurity has to be raised (9/11/2016); increased biosecurity is the main part of any risk area.

On 23/03/2017 the obligatory housing of all poultry in the whole territory of Austria has been lifted. At this time, dead wild birds were found sporadically. In order to avoid spread of AI-virus, the CA decided to order increased biosecurity measures within Austria with the exception of housing:

- Keeping poultry and other captive birds with less contact to wild birds as possible
- Feeding indoor or – where not possible – measures to keep away wild birds from feeding places
- Watering not from open water
- Increased cleaning and disinfection
- Increased notification obligations (drop down of uptake of food and water more than 20 %, decrease of egg production more than 5 % for more than 2 days, mortality rate more than 3 % per week).

Lifting of these higher biosecurity measures on 30/05/2017.

6. Preventive culling

No preventive culling has been applied.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation)

Based on the geographical distribution of found dead wild birds, the annex 1 of „Geflügelpest-Verordnung 2007 – decree on eradication of AI 2007“ was amended several times. The smallest unit is the municipality, where farmers were obliged to keep their poultry indoor. Greater territories are municipalities. On 10 January 2017 the whole territory of Austria was concerned and on 25 March the restrictions have been lifted.

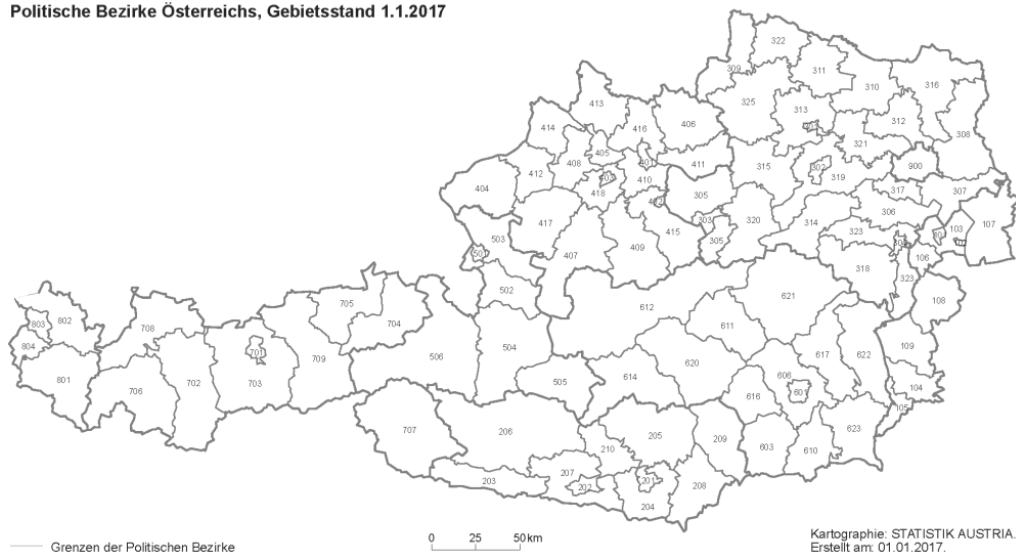
In the Annexes of the Geflügelpest-Verordnung 2007 is a list of municipalities within a high risk area.

PZ and SZ are 3-km and 10-km zones according to EU-legislation. High risk areas are defined in coordination with concerned Neighboring Countries, the expert group, stakeholders etc. They are much wider than PZ and SZ. In and within high risk zones, movements are not restricted.

The smallest unit is the municipality, where farmers were obliged to keep their poultry indoor. Greater territories are districts.

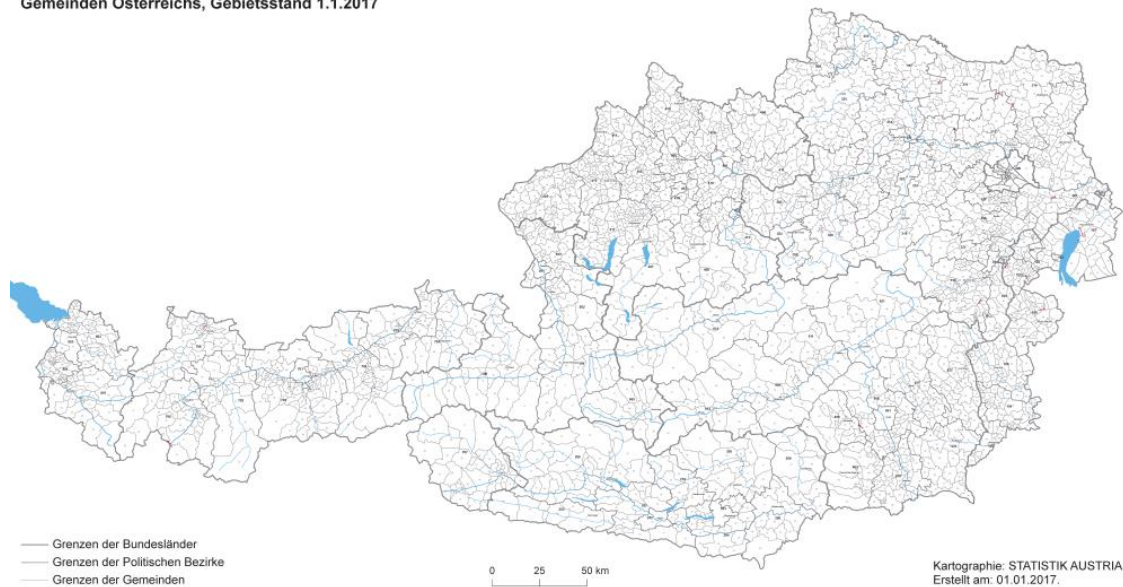
In Austria we have 94 districts (Bezirke):

Politische Bezirke Österreichs, Gebietsstand 1.1.2017



And each district has several municipalities (Gemeinden):

Gemeinden Österreichs, Gebietsstand 1.1.2017



8. Derogations on restriction zone implementation after risk assessment

The AGES performed a risk assessment and provided the BMGF with an "Analysis of ADNS data from 1.6.2016 to current date" on a weekly basis (published on the BMGF-homepage). Furthermore, investigation data and a map were forwarded on a weekly basis as well.

According to § 8 of the Austrian Geflügelpest-Verordnung (decree on eradication of AI 2007) derogations from certain measures within restriction zones could be given by the CA. A monthly clinical investigation and a serological investigation every three months (farms with more than 350 birds) by the Official Veterinarian were obligatory.

9. Hunting

The disease had no impact on hunting, whereas the hunting associations had been informed.

References (if relevant)

Annex D – Applied prevention and control measures on avian influenza Belgium

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1. Scope

This document provides a brief overview of specific prevention and control measures applied in Belgium during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
10/11/2016	Introduction of the clade 2.3.4.4. HP H5N8 virus into EUROPE	Confinement of all commercial holdings	Commercial holdings
1/2/2017	Hobby poultry (chicken, guinea fowl and peacock), Lebbeke, Belgium	Culling of all birds on premises (sending in additional birds for testing: ducks and geese) 3km stand-still zone	
01/02/2017	First case in hobby poultry, Lebbeke, Belgium: Chicken, Guinea fowl and Peacock	Confinement of all backyard poultry	General Public
17/2/2017	Oud-Heverlee, Belgium: Cygnus Olor		
27/2/2017	Sint-Agatha Rode, Belgium: Anas platyrhynchos		
17/3/2017		Lifting of confinement measures for hobby and backyard poultry, pigeon and austriches	
21/3/2017	Dilsen-Stokkem, Belgium: Cygnus attratus + Anas platyrhynchos		
23/3/2017	Bird refuge center Ottignies (Birds Bay), Belgium: Anas platyrhynchos, Buteo buteo and	All live birds present in the centre were swabbed and tested for AI All live birds present were bled, to allow serologic testing for past HP	

	Callinula Chloropus	H5N8 infection All dead birds present in the freezer (non-water birds or birds of prey) were tested for AI	
20/4/2017		Lifting of confinement measures for commercial holdings	

3. Increasing awareness of the stakeholders and the general public ((*Brief description of the communication plan/activities in autumn-winter 2016-2017 (October 2016-April 2017) in relation to avian influenza (preferably with links to relevant website, documents, etc.*))

<http://www.afsca.be/persberichten/2016/2016-11-10.asp>

<http://www.favv-afsca.be/persberichten/2017/2017-03-17.asp>

<http://www.favv-afsca.be/persberichten/2017/2017-02-01.asp>

WVPA-BELGIUM, veterinarians: Overview of Be-H5N8 outbreaks (18/5/2017)

General surveillance:

- **Poultry**

- Annual serological surveillance (since 2003), Holdings > 200 birds
Generic surveillance by NP-ELISA
H5/H7 HI testing in case of NP-ELISA positives
Follow-up by virological testing when H5/H7 HI-positives
- Clinical surveillance:
 - a mortality rate > 3% /week;
 - > 20% reduction in the normal water/food consumption;
 - a laying drop > 5% for more than two days;
 - clinical signs or post-mortem lesions indicative of avian influenza.
 ⇒ viral diagnostics (Pool lung/trachea, or swabs),
testing by generic Matrix Influenza A detection by realtime RT-PCR,
follow-up of M-AI positives by H5/H7 subtyping by realtime RT-PCR.

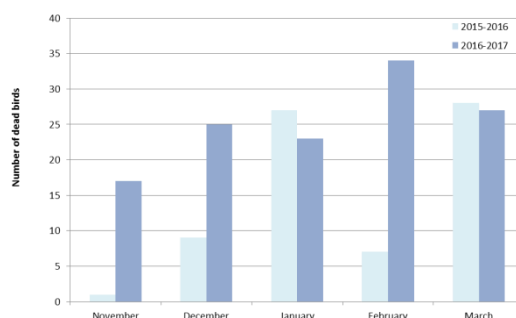


FIGURE 1: example of number of samples entered for clinical surveillance November-March comparing 2015-2016 and 2016-2017

- **Wild birds**

- Passive surveillance (since 2005)

No excess mortality noticed
 Re-stimulation of the entire network of ornithologists and bird ringer network
 174 birds in 5 months

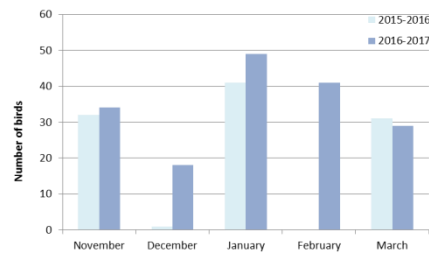


FIGURE 2: Number of samples passive wild bird surveillance November-March comparing 2015-2016 and 2016-2017

- Active surveillance (since 2005)
 Extra efforts were done after EU-introduction
 3004 swabs in 5 months

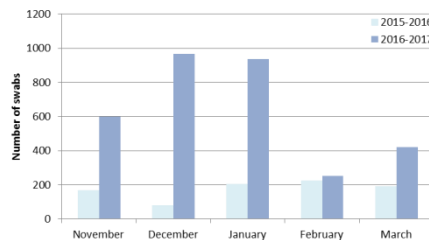


FIGURE 3: Number of samples active wild bird surveillance November-March comparing 2015-2016 and 2016-2017

4. Housing order *(Description of the start/end dates, criteria used to decide on implementation/repealing, criteria used to define the area, scope (production categories and/or zoos, professional and/or non-professional) (preferably with links to relevant website, documents, etc.))*

ALWAYS

GENERAL RULES COMMERCIAL HOLDINGS

- Owners have to register all flocks in Sanitel
- Disinfecting footbaths containing a licensed biocide must be placed at the entrances and exits of each chicken coop and operation.
- Access to a chicken coop or hatchery is forbidden to any person not belonging to the farm. The responsible person shall take all necessary measures to this end. This prohibition does not apply to:
 - the personnel necessary for the management of the holding;
 - the operating veterinarian;
 - the staff of the Food Agency and the persons working under it;
 - the staff of other competent authorities and the persons working under their supervision.

These persons are required to wear boots and clothing or sweatshirts on the farm before entering the henhouse or hatchery and to take all necessary measures to avoid dispersal of the avian influenza virus.

- Every person in charge must keep up to date a visit log which includes the date and time of the visit, the visitor's name and address, the name of the vehicle, the reason for the visit and whether or not the stables. In this register, any person entering the henhouse or hatchery is listed in chronological order.

The operating veterinarian must date and sign this register at each visit.

- Feeding and drinking of poultry and other captive birds must be done indoors or in such a way as to prevent contact with wild birds.
- It is forbidden to water poultry with water from surface water tanks and rainwater accessible to wild birds, unless this water is treated to ensure the inactivation of potential viruses.
- The person in charge of a registered poultry farm must carry out an annual risk assessment on the introduction of avian influenza in collaboration with his operating veterinarian. The risk assessment model and the use of the risk assessment are communicated by the Food Agency.
- The gathering of poultry and / or other captive birds is only permitted under the following conditions:
 - A) the organizer of the rally must register with the Food Agency at least 48 hours before the start of the rally;
 - (B) the organizer of the meeting shall keep a list of the names and addresses of the holders who participate with their animals in the rally. This list must be made available to the Food Agency for at least 2 months.
 - (C) the gathering shall be under the official supervision of an approved veterinary surgeon designated by the organizer of the meeting. The organizer shall communicate the name of the designated approved veterinarian to the UPC concerned before the start of the rally.

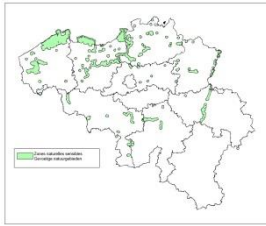
In addition to the measures set out in the preceding paragraph, poultry and other captive birds shall not be offered for sale when they were not confined or protected during the 10 days prior to entry in such a way as to render contact with wild birds impossible.
- Outside risk areas, access to any place where poultry or other captive birds are held is prohibited for any vehicle, person or equipment that, within the preceding 4 days:
 - o has been in contact with poultry or other captive birds held in a risk area in the national territory or abroad,

Or

 - o has traveled to a place where poultry or other captive birds are kept in a risk area both national or abroad.

This prohibition shall not apply to staff of the Food Agency and other competent authorities or to persons working on their behalf provided that they comply with the hygiene requirements laid down in The Food Agency.
- Any means of transport and equipment used for the transport of poultry, other captive birds, hatching eggs or eggs for consumption shall be cleanable and disinfected or disposable. It must be cleaned and disinfected with an authorized biocide after each transport and collection. The cleaning and disinfection must be carried out without delay and at the latest within three working days following the return to Belgian territory or before entering a place where poultry or other captive birds are kept. An authorized biocide must be used, and the procedure executed under the supervision of an approved veterinarian, designated by the UPC concerned. Cleaning and disinfection are carried out according to the instructions of the UPC. The approved veterinarian shall certify the cleaning and disinfection on the assigned document and hand it over to the carrier. After the cleaning and disinfection, the carrier shall forward the double of the document to the UPC without delay. The original document must be kept by the carrier for a minimum period of five years.
- Any abnormal disease or mortality in poultry should be examined immediately by the operating veterinarian or an approved veterinarian. If the veterinary surgeon or the authorized veterinarian cannot exclude avian influenza during this examination, he shall immediately inform the official veterinarian.
- In the following cases, it is prohibited to introduce therapeutic treatment in poultry if samples have not previously been transmitted to an association for laboratory analysis:
 - o a reduction in the normal consumption of water and food by more than 20%;
 - o a mortality rate of more than 3% per week;
 - o a laying drop of more than 5% for more than two days;
 - o clinical signs or post-mortem lesions indicative of avian influenza.

EXTRA GENERAL RULES THAT APPLY IN SENSITIVE AREAS FOR COMMERCIAL HOLDINGS



- Watering and feeding of poultry and other captive birds must be done indoors or in such a way as to prevent contact with wild birds.
 - Poultry and other captive birds should not be watered with water from surface water tanks and rainwater accessible to wild birds unless treated to ensure inactivation of the birds.
 - Ducks and geese held in captivity should be separated from other poultry.
 - Poultry from registered poultry farms should be confined or protected to avoid contact with wild birds.
- The Food Agency may prescribe additional clinical, pathological, serological or virological examinations.

DURING PERIOD OF VIGILANCE

Extra precaution measures are decided by the minister based on a risk analysis performed by the FAFSC.

- Poultry from registered poultry farms must be confined or protected in order to avoid contact with wild birds.
- Poultry and other captive birds should be confined or protected to avoid contact with wild birds. (Amateurs)
- Feeding and watering of poultry and other captive birds must be done indoors or in such a way as to make contact with wild birds impossible. (Already the case in normal time for professionals, here also valid for amateurs)
- It is prohibited to water poultry and other captive birds with water from surface water tanks or rainwater accessible to wild birds unless the water is treated to inactivate any viruses present. (Already the case in normal time for professionals, here also valid for amateurs)
- Meetings of poultry and other captive birds, other than markets, are prohibited, with the exception of poultry exhibitions and competitions of special holders and other captive birds. For the latter no change of officials is allowed and provided that poultry or other captive birds present were confined or protected so as to make contact with wild birds impossible during the ten days prior to the gathering.
- All broilers from the same strip must be removed within two working days following the day of first loading for the slaughterhouse.

5. Strengthening biosecurity measures (other than housing order) *(Description of how was it done, was there a follow up to check the level of implementation (after communication by competent authority))*

No control of implementation for Amateurs

6. Preventive culling

Not applied

Only culling of surviving birds on first positive premises (Hobby poultry, all other cases were in wild birds.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation) *(Was it applied or not, criteria used to decide, which region (describe using NUTS3 terminology))*

Not applied

A 3 km surveillance zone around the first outbreak was implemented

8. Derogations on restriction zone implementation after risk assessment (*Was it applied or not, which region, criteria used to decide*)

9. Hunting (*Was it allowed, restricted or forbidden, criteria used to decide, if restricted (specify period, species groups)*)

Hunting was allowed

Export of live racing pigeons also

References (if relevant)

Annex E – Applied prevention and control measures on avian influenza Bulgaria

A. Miteva, A. Zdravkova

Animal Health and Welfare, and Feed Control Directorate

Bulgarian Food Safety Agency

1. Scope

This document provides a brief overview of specific prevention and control measures applied in Bulgaria during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

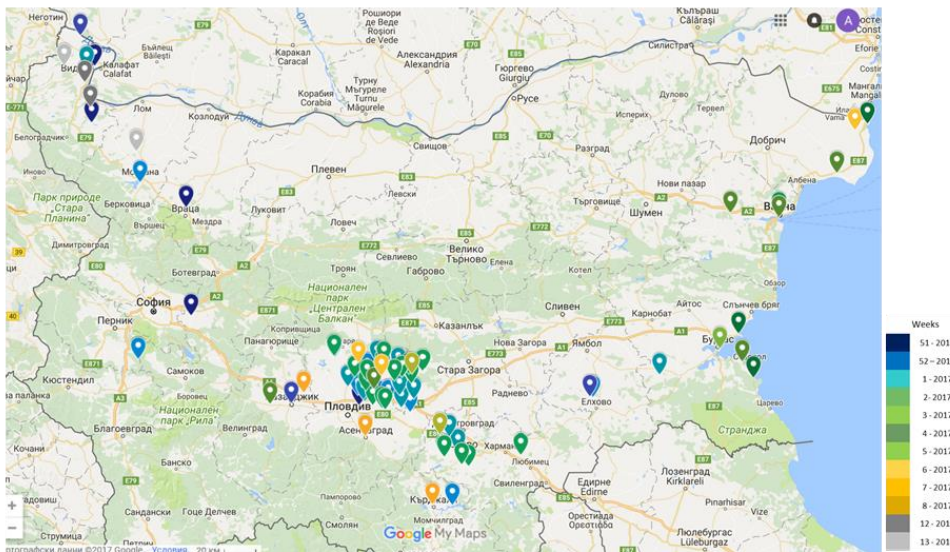
1.1 Summary of the HPAI Epidemiological situation in Bulgaria as at March 23, 2017

The first report of HPAI H5N8 outbreak was recorded in December 19, 2016. In total 83 outbreaks in domestic poultry and wild birds were confirmed in 14 administrative regions (out of 28 regions in total) of Bulgaria, in period 19 December 2016 -30 March 2017, as follows:

- a) Outbreaks in domestic poultry:72 outbreaks in 12 administrative regions (including 2 outbreaks in captive poultry).
- b) 13 cases in wild birds in 6 administrative regions.
- c) 1 outbreak in a zoo in 1 administrative region

The highest number of HPAI outbreaks in poultry were recorded in first three weeks of epidemic (25.12.2016 – 15.01.2017), followed by significant increasing of cases in wild birds. Last confirmed outbreaks were related to small backyards, located in areas with higher density of migratory wild birds.

The geographical distribution and chronological overview of the HPAI H5N8 spread per week of detection and per region in Bulgaria are presented on the Map 1 and Charts 1 and 2. (N=86, 19/12/2016-30/03/2017, Bulgaria)



Map 1: geographical distribution of HPAI spread per week of detection, Bulgaria (December 2016-March 2017)

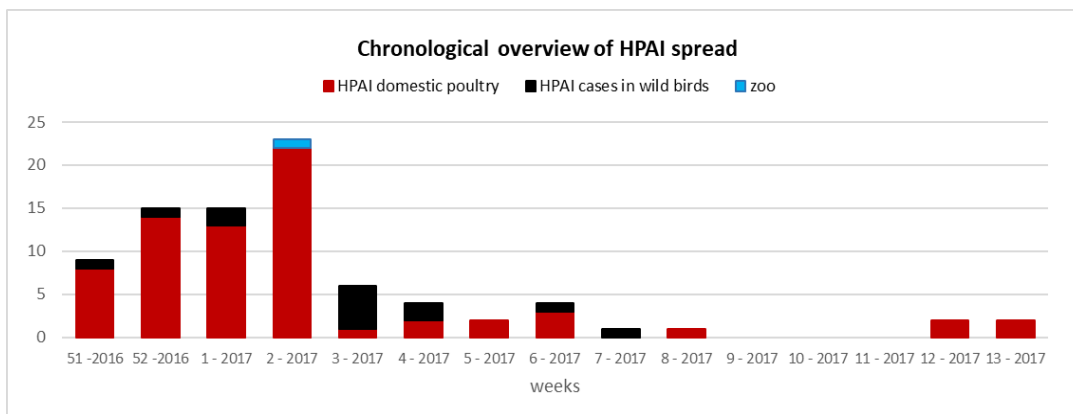


Chart 1: chronological overview of the HPAI spread, per week, Bulgaria (December 2016-March 2017)

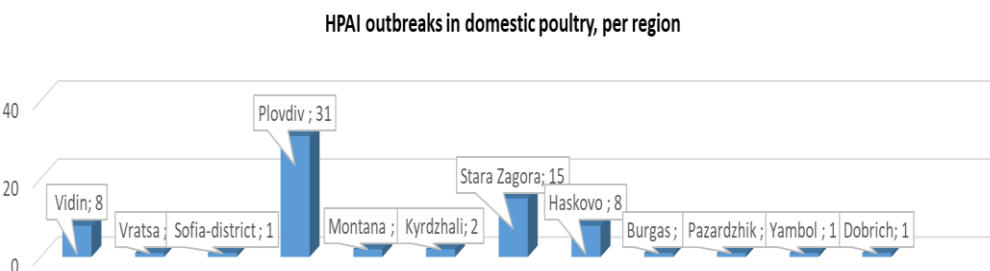


Chart 2: geographical distribution of HPAI spread per region, Bulgaria (December 2016-March 2017)

1.2. Production sector affected by HPAI spread

Regarding the domestic poultry category the HPAI H5N8 affected mainly duck production (82 %), followed by backyards (15%) and commercial laying hen farms. Distribution of HPAI according to poultry production and farm type are presented on the Charts No 3 and 4 (N=72, 52 duck farms, 16 backyards and 2 laying hen farms, 19/12/2016-30/03/2017, Bulgaria)

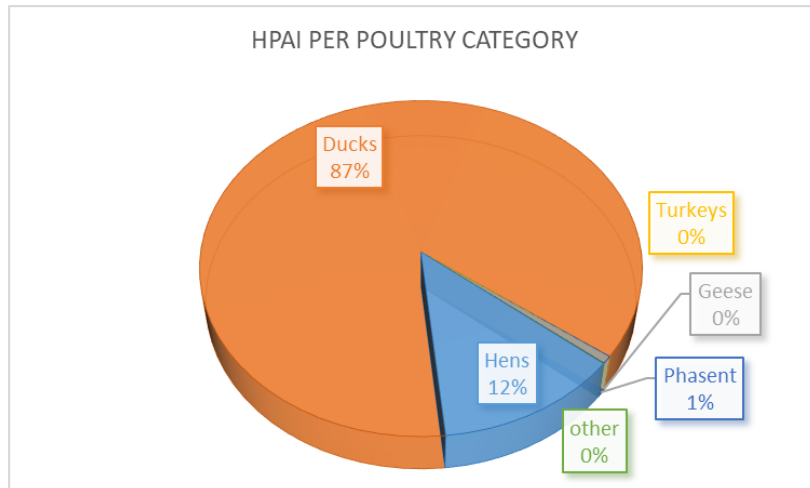


Chart 3: Distribution of HPAI H5N8 outbreaks according to affected poultry production, Bulgaria (December 2016-March 2017)

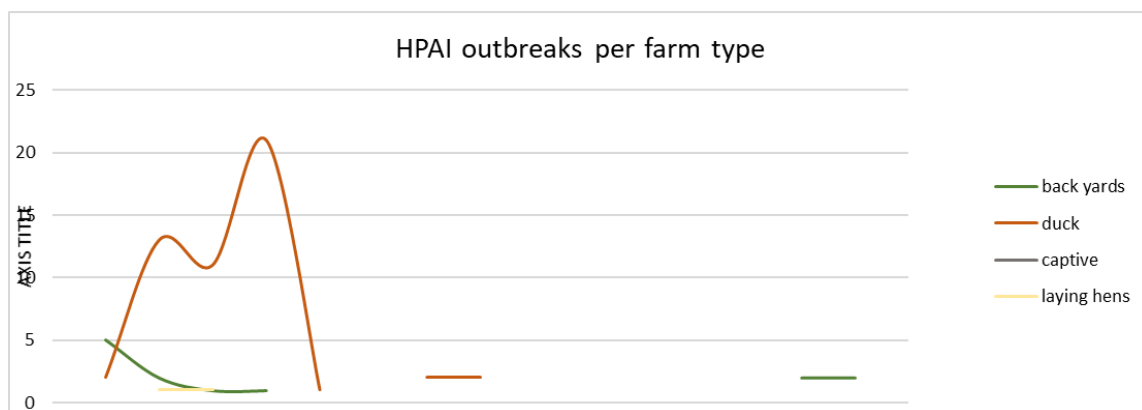
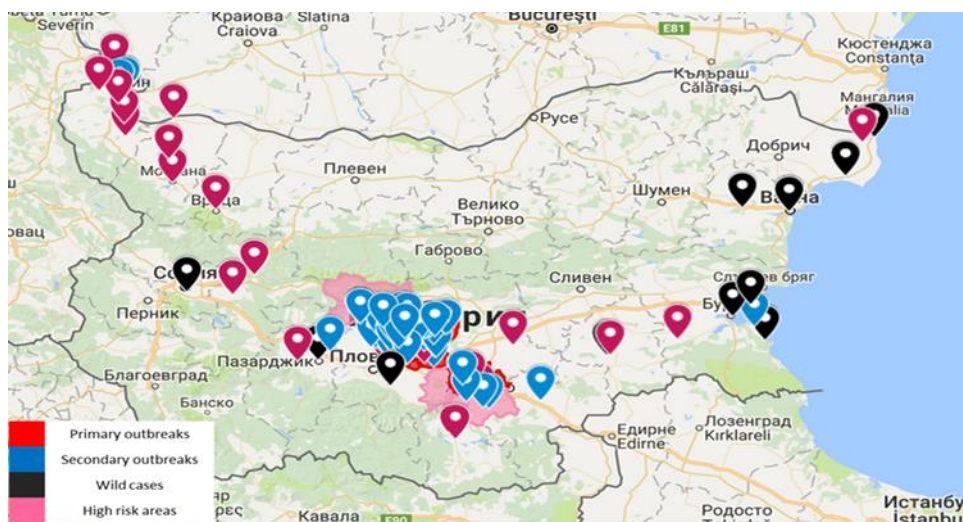


Chart 4: Distribution of HPAI H5N8 outbreaks according to poultry farm type, Bulgaria (December 2016-March 2017)

More than half of outbreaks in domestic poultry (48 out of 72 outbreaks) were recorded as secondary outbreaks, in 5 regions of the country (out of 14 affected regions). Secondary spreading was notified especially in domestic waterfowl farms (duck farms), located mainly in three regions of the country (central part of the country). Map presenting the geographical distribution of HPAI primary and secondary outbreaks in the country is presented on Map 3.



Map 3 – Geographical distribution of the HPAI primary and secondary outbreaks in domestic poultry and cases in wild birds (December 2016-March 2017)

Description of the main events in chronological order including the prevention and control measures implemented to manage the situation is described in Table 1.

1.3 Epidemiological survey

Regarding the possible introduction pathways and incursion in the country, the epidemiological survey concluded multiply pathways - "contact with wild birds", biosecurity measures ("introduction by staff, equipment, vehicles") (35 %), movement/trade of poultry (introduction of infected domestic birds). These outcomes were based on the epidemiological inquiry carried out by the regional official veterinarians.

Hunting and handling of shot waterfowl was also considered as a risk factor for spreading avian influenza virus to susceptible poultry. Taking into account that a number of poultry farmers/keepers were hunters, the possible incursion of infection to poultry farms through fomites (clothing, boots, vehicles) or unsafely disposed waste from hunted birds was not ruled out.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
01/11/2016-19/12/2016	Emergency situation in Europe	Regular update reports about the epidemiological situation in Europe, prevention and control measures applied, preparedness of the regional veterinary units.	Ministries and policy departments concerned
	Emergency of the Situation in Europe – increasing the number of HPAI in poultry and wild birds in Germany, Hungary, France etc.	Several meetings aiming to raise awareness on epidemiological situation in Europe, control and eradication measures under current EU and national legislation. Mass media reports	NGO and poultry organizations, farmers, breeders, general public

		Meetings aiming to raise awareness and enforce surveillance in wild birds	Hunting associations; ornithology organization
		Publishing key notes on AI prevention and control measures and update epidemiological situation in Europe on the BFSA website	General public
		Distributing leaflets, brochures on AI prevention and control measures	Farmers and general public
		Distributing Instruction for biosecurity measures to be applied in relation with the AI control	NGO and Poultry organization, Farmers
		Strengthening the emergency veterinary preparedness at region level. Imposing precautionary measures to be applied by all farmers and poultry keeper, as strengthening biosecurity measures in their farms; keeping poultry indoors; taking steps to separate them from wild birds , etc.	
		Establishing Regional Expert Commissions for AI Emergency Preparedness (the Commission provides expert assistance, establishes plans and sets out the measures for the protection of human and animal health, eradication of outbreaks etc. at regional level. On the basis of the commission's decisions, the District Governor and mayors of the municipalities within the concerned administrative region issued specific orders requiring implementation of the respective measures)	Ministries and policy departments concerned
19/12/2016	A notification of the first AI outbreak in the country	Re-establishing a National Expert Commission for AI Emergency. Conducting regular weekly meeting of the Commission until the end of February 2017. Minutes from the meetings were published on the BFSA website.	Ministries and policy departments concerned, general public
19/12/2016	5 HPAI outbreaks confirmed in the country	Control and eradication measures in affected region according to the Directive 2005/94/EO and National Contingency Plan; epidemiological survey; establishing restriction zones and conducting surveillance; banning fairs, markets or poultry gatherings and market on the entire territory of the country; Press release on BFSA website and official communication letters to organisations concerned. Notification to EK, EU MSs, non EU countries.	Ministries and policy departments concerned; farmers, breeders in the restricted zones, general public, involved organisations
20-25/12/2016	4 HPAI outbreaks confirmed in the country		
26.12 - 30.12.2016	17 HPAI outbreaks confirmed in the country		
29.12.2017	HPAI situation in the country	Enhancing the cooperation and wild bird surveillance by hunters and ornithology organizations; Orders requested* tightening biosecurity measures at all levels of	Hunting associations; ornithology organization; Farmers, breeders, general public, involved organisations

		poultry production; indoor keeping of domestic poultry; veterinary control and clinical examinations (sampling in case of suspicion for AI infection) in domestic poultry farms, sampling , including hatcheries; veterinary control and pre-authorization for every poultry movements (including pre-movement testing), control verifying that the ban for fairs, poultry gatherings and market was applied; eradication of all laboratory confirmed outbreaks, including culling and destruction of poultry in epidemiologically /technologically linked farms/or hatcheries; cleansing and disinfecting the infected holding, means of transport and etc.	
02-08.01.2017	17 HPAI outbreaks confirmed in the country		
03.01.2016	HPAI situation in the country	Ban for hunting of wild-feathered game bird, including gatherings and restocking of game on the entire territory of the country, Consequently, the Order was amended and wild bird hinting was restricted only in areas considered as high risk areas. The factors considered to define high-risk areas referred to the epidemiological situation of the country, geographical distribution of the outbreaks, protection and surveillance zones established, the wild bird migration routes and areas with high density of wild birds.	Hunters, Farmers, general public, involved organisations
		Orders required designation of experts on duty outside office hours in terms of receiving and handling alerts for disease suspicion .	Veterinary authority , general public
02 - 08.2017	15 HPAI outbreaks confirmed in the country	Control and eradication measures in affected region according to the Directive 2005/94/EO and National Contingency Plan; epidemiological survey;establishing restriction zones and conducting surveillance. Press release on BFSAs website and official communication letters to organisations concerned. Notification to EK, EU MSs, non EU countries.	Ministries and policy departments concerned; farmers, breeders in the restricted zones, general public, involved organisations
9-15.01.2017	23 HPAI outbreaks confirmed in the country		
15.01.2017	HPAI outbreaks confirmed in the country	Active surveillance and sampling of all duck farms located in the three high risk regions (central part of the country – please see map 2).	Veterinary authority
16-22.01.2017	6 HPAI outbreaks confirmed in the country	Control and eradication measures in affected region according to the Directive 2005/94/EO and National Contingency Plan; epidemiological survey; establishing restriction zones	Ministries and policy departments concerned; Farmers, breeders in the restricted zones, general public,

		and conducting surveillance. Press release on BFSA website and official communication letters to organisations concerned. Notification to EK, EU MSs, non EU countries.	involved organisations
17.01.2017		Banning repopulation of the poultry farms previously affected by HPAI and those located in restriction zones	
23.01-22.02.2017	18 HPAI outbreaks confirmed in the country	Control and eradication measures in affected region according to the Directive 2005/94/EO and National Contingency Plan; epidemiological survey; establishing restriction zones and conducting surveillance; banning the poultry market on the entire territory of the country; Press release on BFSA website and official communication letters to organisations concerned. Notification to EK, EU MSs, non EU countries.	Ministries and policy departments concerned; farmers, breeders in the restricted zones, general public, involved organisations
22.02.2017	HPAI epidemiological situation in the country	Establishing an additional restriction zone in regions considered as high risk (Please see the Map 3). The zone has been established according to the Article 16 (4) of Directive 2005/94/EC and measures applied are pursuant to Art.30	Ministries and policy departments concerned; farmers, breeders in the restricted zones, general public, involved organisations
22.03-30.03.2017	5 HPAI outbreaks confirmed in the country	Control and eradication measures in affected region according to the Directive 2005/94/EO and National Contingency Plan; epidemiological survey; establishing restriction zones and conducting surveillance; banning the poultry market on the entire territory of the country; Press release on BFSA website and official communication letters to organisations concerned. Notification to EK, EU MSs, non EU countries.	Ministries and policy departments concerned; farmers, breeders in the restricted zones, general public, involved organisations
15.04.2017		Enforcing specific measures for repopulation of farms: namely: Elapsed duration of measure in the restriction zones official veterinary pre-authorization presence of high level of biosecurity in the farms preliminary repopulation with sentinel poultry and laboratory testing proving absence of AI infection (Measures has been described in specific instruction approved by Order РД 11-734/06.04.2017r of the Executive Director of BFSA)	Farmers, breeders, general public, involved organisations
30.04.2017 - 14.06.2017	Favorable trend of HPAI epidemiological situation in the country	Lifting all restriction zones in the country Amending the National Control and surveillance programme for AI for	Ministries and policy departments concerned; veterinary authorities, farmers, breeders in the

		2017 and 2018, in line with the HPAI epidemic 2016-2017. The amended programme includes strengthened surveillance, increased sampling in duck farms, additional laboratory testing of samples for N8.	restricted zones, general public, involved organisations
		Lifting the restriction measures enforced in entire territory of the country.	

*All of the measures described were required by Orders of Minister of Agriculture and Food and Executive Director of the Bulgarian Food Safety Agency.

3. Increasing awareness of the stakeholders and the general public ((Brief description of the communication plan/activities in autumn-winter 2016-2017 (October 2016-April 2017) in relation to avian influenza (preferably with links to relevant website, documents, etc.))

Awareness and preparedness were of particular importance for the AI prevention and control. Special web page dedicated for AI crisis (October 2016-April 2017) has been created on the BFSA's website. All relevant information, update reports, Instructions, Orders, Information on control measures applied, Reports and outcomes from the National Expert Commission's meetings, including Map showing the geographical distribution of the HPAI outbreaks and protection and surveillance zones established were published on the BFSA's website. Additionally an emergency phone number in line of emergency communication system was created enabling the daily communication with farmers and stakeholders.

Web link to the BFSA's website dedicated on AI crisis (2016-2017):

<http://www.babh.government.bg/bg/Page/info-lsd/index/info-lsd/%D0%98%D0%BD%D1%84%D0%BE%D1%80%D0%BC%D0%B0%D1%86%D0%B8%D1%8F>

Mass media has also been used for the purpose of increasing awareness of the stakeholders and the general public. Numbers of articles, interviews with Animal Health Experts from BFSA were regularly published.

Training "Zoonosis with highly importance for Bulgaria" for hunters was conducted, where special focus on AI crisis was given, resulting in raising awareness and providing general knowledge on AI prevention and control.

4. Housing order (Description of the start/end dates, criteria used to decide on implementation/repealing, criteria used to define the area, scope (production categories and/or zoos, professional and/or non-professional) (preferably with links to relevant website, documents, etc.))

In November 11, 2016 an Order of Executive Director of the BFSA required precautionary measures as keeping poultry indoors, taking steps to separate them from wild birds and ensuring feed and water is not accessible to wild birds. This applied to farmers and anyone who keeps any birds, even those with backyards.

In line with the emergency of the situation in the country, in December 29, 2016, Order of the Minister of Agriculture and Food introduced the same restrictive measures for entire country. However, due to the production technology, the duck production industry expressed their concerns and difficulties in practical implementation of these measures.

“Free range” is used mainly in waterfowl farming in Bulgaria. There are a few “free range” laying hen farms only in Bulgaria and their location is far away from the affected areas. That’s why the housing order had significant impact only for waterfowl farms.

5. Strengthening biosecurity measures (other than housing order)

(Description of how was it done, was there a follow up to check the level of implementation (after communication by competent authority))

The BFSA organized numbers of information campaigns among poultry breeders, farmers and keepers for biosecurity measures to be applied in relation with the AI control

During the epidemic, the implantation of biosecurity measures was regularly assessed by the official veterinary control. In the events of non-compliances or serious and repeated infringements, the competent authorities imposed the appropriate prescription or penalties.

The procedure for amending the Ordinance *on veterinary requirements for animal holdings* under the national legislation has been launched in order to strengthen the minimum veterinary and sanitary requirements for the poultry animal holdings in the country.

6. Preventive culling *(Was it applied or not, criteria used to decide, which holdings (only contact holdings or all holdings in an area (specify the km radius))*

It was applied only in event of epidemiologically linked or contact farms/hatcheries.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation) *(Was it applied or not, criteria used to decide, which region (describe using NUTS3 terminology))*

Regional stand still beyond the restriction zone was not applied

8. Derogations on restriction zone implementation after risk assessment *(Was it applied or not, which region, criteria used to decide)*

Derogations from the housing order were granted in zoos, a wild life park, a fenced area where poultry and other captive birds were kept for scientific purposes or purposes related to the conservation of endangered species.

Additionally derogation from the eradication measures were granted in the case of HPAI confirmed in zoo Sofia.

9. Hunting *(Was it allowed, restricted or forbidden, criteria used to decide, if restricted (specify period, species groups)*

As described above in Table 1

Hunting of wild-feathered game was forbidden on the entire territory of the country, including gatherings and restocking of game in January 03, 2017.

Consequently, the Order was amended and wild bird hinting was restricted only in areas considered as high-risk areas. The risk areas were designated with support and fruitful cooperation from hunter organizations, as factors considered were referred to the epidemiological situation of the country and geographical distribution of the outbreaks, protection and surveillance zones established density and location of poultry farms, the migration routes of wild bird and areas with high density of wild birds etc.

References (if relevant)

Annex F – Applied prevention and control measures on avian influenza in the Czech Republic

M. Vágnerová, P. Šatrán, M. Dubská

Department of Animal Health and Animal Welfare
State Veterinary Administration of the Czech Republic

1. Scope

a. Highly pathogenic avian influenza in the Czech Republic – outbreaks

In total 39 highly pathogenic avian influenza (HPAI) outbreaks in poultry and captive birds were confirmed in 11 regions of the Czech Republic in period from 5th January to 22nd March. In period from 5th January to 24th February HPAI H5N8 virus in 51 wild birds found dead (40 swans, 7 ducks, 2 geese, 2 heron) was confirmed in 13 regions at 32 location in the Czech Republic.

Only five HPAI H5N8 outbreaks in poultry concerned commercial holdings. Others 33 HPAI H5N8 outbreaks were confirmed in back-yard flocks. One HPAI H5N5 outbreak has occurred in Zoological garden in captive bird (swan, pelican).

b. Measures

All obligatory measures including culling of birds, disposal of carcasses and products, cleaning and disinfection were applied in all affected holdings and back-yards flocks according to the EU legislation. In the case of outbreak in ZOO all swans and geese were culled. Other pelicans, which lived together with positive dead pelican and without clinical signs of the disease, were isolated and tested by virological test (negative).

In compliance with EU legislation restricted zones were established in the case of all outbreaks. In connection with three outbreaks in Southern Moravian Region the preventive culling of all poultry in the protection zone was applied (see point 6).

The State veterinary administration (SVA) decided on 10th January for application of national extraordinary veterinary measures, which ordered to commercial bird breeders to keep animals inside and to take necessary biosecurity measures for protection against avian influenza. The extraordinary measures prohibited the organisation of exhibition, sales or other gathering of birds.

The SVA also established restricted zones in Region of Hradec Králové and Moravian-Silesian Region due to the outbreak confirmation in Poland near the Czech border. Established restricted zones around five outbreaks in the Czech Republic (Orlová, Žofina Huť, Doubrava, Klest, Poustka) were interfering the neighbour states (Germany, Austria, Poland). The SVA informed all these states about outbreaks confirmation (see attachment No 1 and 2).

c. Provided information

Information concerned HPAI occurrence in EU and outbreaks and measures in the Czech Republic was regularly provided and updated on the SVA website, by press release published and by official letters to general public and involved organisation.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
The second half of the year 2016	disease situation in Europe	special official biosecurity checks in poultry holdings	Poultry breeders
8.11.2016	disease situation in Europe	SVA official letter to poultry breeders association and to Regional veterinary administration with information about HPAI occurrence	Poultry breeders association and Regional veterinary administration
10.11.2016	disease situation in Europe	press release about AI situation in Europe and about necessity prevention measures with information	General public including breeders
24.11.2016	disease situation in Europe	letter to all regional authority to published the letter about AI situation in Europe and the preventive measures to official boards	Breeders
30.11.2016	disease situation in Europe	SVA official letter to breeding associations about HPAI situation in Europe and possible preventive measures	Breeders associations
2.1.2017	First suspicion in wild birds (two swans) in Němčice u Ivančic	sampling and laboratory testing of dead wild birds	
2.1.2017	First suspicion in poultry flock (Moravský Krumlov)	on the spot check, measures to prevent spread of the virus, sampling, laboratory testing, epidemiological investigation	Affected farm
5.1.2017	Confirmation HPAI H5N8 in poultry flock (Moravský Krumlov)	veterinary measures for outbreak in Moravský Krumlov and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in the restricted zones, general public, involved organisations
5.1.2017	Confirmation HPAI H5N8 in poultry flock (Němčice u Ivančic)	veterinary measures for outbreak in Němčice u Ivančic and for restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in the restricted zones, general public, involved organisations
6.1.2017	Confirmation HPAI H5N8 in poultry flock (Letkovice)	veterinary measures for outbreak in Letkovice and for restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in the restricted zones, general public, involved organisations
6.1.2017	Evaluation of disease situation in the Southern Moravian Region – other suspicion notification from the nearest villages, two positive	decision for preventive birds culling in the established protection zone around first three outbreaks performed from 7.1. to 11.1.2017 – information published by press release, SVA official letter to organisations concerned, SVA	Breeders in the protection zone, general public

	wild swans in the proximity	website	
9.1.2017	Disease situation evaluation (in total five outbreaks confirmation in Moravský Krumlov, Němčice u Ivančic, Letkovice, Brod nad Dyjí, Lázně Toušeň) and 40 suspicion notification of suspicion from various regions of the Czech Republic	decision for publication of national veterinary measures aimed to control the spread of HPAI. The national measures was published on 10.1.2017 – information published by official letter to organisation concerned	general public including breeders
12.1.2017	ADNS information about outbreak in Poland near to the Czech border – Kudowa Zdroj	establishing protection and surveillance zone in Region of Hradec Králové – information published on SVA website	Breeders in the protection and surveillance zones, general public
From 12.1. to 4.2.2017	11 HPAI H5N8 outbreaks (Chotčiny, Libějovice, Sedlečko u Soběslavě, Lověšice, Blatenská ryba – Řitovíz, Kadeřavec, Ostrava – Svinov, Bílence, Lednice, Vlachovo Březí, Kostelec nad Labem)	veterinary measures publication for all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in restricted zones, general public, involved organisations
5.2.2017	HPAI H5N8 outbreak confirmation in backyard flock in Orlová in Moravian-Silesian Region	surveillance zone intervened Poland - e-mail information to Poland sent on 5.2.2017	Competent authority of Poland
5.2.2017	HPAI H5N8 outbreaks (Koldín, Janův Důl, Hlásná Třebáň)	veterinary measures publication for all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in restricted zones, general public, involved organisations
from 6.2. to 8.2.2017	HPAI H5N8 outbreaks (Blatenská ryba – Mačkovská, Záryby, Horní Lhota, Blažejovice)	veterinary measures publication for all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in restricted zones, general public, involved organisations
9.2.2017	HPAI H5N8 outbreak confirmation in backyard flock in Nová Ves nad Lužnicí in Southern Bohemian Region	surveillance zone intervened Austria - e-mail information to Austria sent on 10.2.2017	Competent authority of Austria
from 10.2. to 13.2.2017	HPAI H5N8 and H5N5 outbreaks (Žďár nad Orlicí, ZOO Liberec, Volyně)	veterinary measures publication for all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in restricted zones, general public, involved organisations
14.2.2017	ADNS information about outbreak in Poland near to the Czech border – Ustron	establishing surveillance zone in Moravia-Silesian Region of Hradec Králové – information published on SVA website	All breeders in surveillance zone, general public
15.2.2017	HPAI H5N8 outbreak in	veterinary measures publication for	Breeders in restricted

	Ochoz	all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	zones, general public, involved organisations
21.2.2017	HPAI H5N8 outbreak confirmation in back-yard flock in Doubrava in Moravian-Silesian Region	surveillance zone intervened Poland - e-mail information sent to Poland on 23.2.2017, e-mail information about disinfection sent on 28. 2. 2017	Competent authority of Poland
23.2.2017	HPAI H5N8 outbreaks (Dačice, Bohy)	veterinary measures publication for all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in restricted zones, general public, involved organisations
24.2.2017	HPAI H5N8 outbreak confirmation in two back-yard flocks in Bernartice in Region of Hradec Králové	protection and surveillance zones intervened Poland - e-mail information sent to Poland on 23.2.2017, e-mail information about disinfection sent on 28. 2. 2017	Competent authority of Poland
25.2.2017	HAPI H5N8 outbreak (Božičany)	veterinary measures publication for all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in restricted zones, general public, involved organisations
28.2.2017	HPAI H5N8 outbreaks confirmation in back-yard flock in Klest and Poustka in Region of Karlovy Vary	Surveillance zone intervened Germany - e-mail information to Germany sent on 1.3.2017, e-mail information about disinfection sent on 8. 3. 2017	Competent authority of Germany
7.3.2017	Evaluation of disease situation	cancellation of national veterinary measures (duration from 10.1 to 7.3.2017) – information published by press release, SVA website, SVA official letter to organisations concerned	general public including breeders, involved organisations
10.3.2017	HPAI H5N8 outbreak (Dobrá)	veterinary measures publication for all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in restricted zones, general public, involved organisations
22.3.2017	HPAI H5N8 outbreak (Poseč)	veterinary measures publication for all outbreaks and restricted zones - information published by press release, on SVA website, SVA official letter to organisations concerned	Breeders in restricted zones, general public, involved organisations

3. Increasing awareness of the stakeholders and the general public

Increasing awareness was performed since the first HPAI occurrence in Hungary in October 2016 and continues as required.

Providing of detailed information related to HPAI and implementation of appropriate measures was carried out by publishing on SVA web, press releases, sending of official SVA letter, publishing articles in breeders magazines and professionals journals.

Organisations and persons concerned were: the Ministry of Agriculture, the Ministry of Health, breeding associations, the Chamber of veterinarians, privat veterinarians, the Veterinary and pharmaceutical university, the Army of the Czech Republic, the Policy of the Czech Republic, the Firefighters of the Czech Republic, the Central disease commission, the Unie of Czech and Slovak zoological garden, regional offices, Rescue station for handicap animals, various breeder organisation etc.

In addition meetings with breeder of poultry, ornamental birds and pigeons have taken place.

The general public was very interested in HPAI occurrence and implementing of measures. Everyone had the possibility to ask about HPAI situation through simple web form. SVA responded immediately all the queries and there were a lot of them.

The media also has showed high interest about disease situation. SVA actively communicated with all media on central and regional level.

4. Housing order

The ban of keeping poultry and other captive birds outside was applied for commercial breeders from 10th January 2017 to 7th March 2017.

5. Strengthening biosecurity measures (other than housing order)

In the second half of the year 2016 SVA carried out special biosecurity official controls to verify the level of biosecurity standards in poultry farms and to increase awareness of the HPAI disease situation in Europe. To increase the effectiveness of official controls, a special Checklist for Hygiene Practice on Holdings Keeping Poultry was used. The document includes questions about bio-security measures applied in buildings, during cleaning, disinfection, feed handling, loading and transport. For farmers to be certain about adequate bio-security standards, they may implement a voluntary Guide of good hygiene practice for poultry farmers. This Guide is available on State Veterinary Administration website.

Information and recommendations on prevention of HPAI introduction and spreading for back-yard breeders are on the SVA website too.

From 10th January 2017 to 7th March 2017 was applied national extraordinary veterinary measures aimed to control the spread of HPAI has been issued by SVA CR. National extraordinary veterinary measures included also for commercial breeders obligatory protection/covering of all openings (windows, doors, ventilation etc.) by nets in order to prevent wild bird penetration.

The commercial breeders had to keep proper records about his farm (mortality, transport, treatment etc.).

Ban of all bird gatherings (fairs, exhibitions, sales etc.) was applied from 10th January to 7th March 2017.

6. Preventive culling

Preventive culling was performed in the protection zones established around first three outbreaks (Moravský Krumlov, Němčice u Ivančic, Letkovice). Mentioned three HPAI H5N8 outbreaks were confirmed on 5th January (Moravský Krumlov, Němčice u Ivačic) and 6th January (Letkovice u

Ivančic). The preventive culling in the area of established protection zone around this three outbreaks was performed in the period from 7th to 11th January.

Criteria and risk factors considered for this decision to apply depopulation were in line with Annex 4 of Council Directive 2005/94/EC. Especially outbreaks location in area with high density of poultry and waterfowls were taken account.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation)

Regional stand still beyond the restriction zone was not applied in the Czech Republic.

8. Derogations on restriction zone implementation after risk assessment

Derogations for transport of live poultry for slaughter processing or for breeding was allowed by Regional veterinary administration (RVA) in compliance with EU legislation.

All derogations were applied based on risk assessment and on the spot check results on farm concerned.

9. Hunting

The measures concerning wild waterfowls hunting were not applied. In compliance with Act No 449/2001 (Hunting Act) most of the waterfowls were not allowed to hunt at the time of the occurrence of HPAI in the Czech Republic.

According to the Czech Republic national extraordinary veterinary measures releasing mallard for restocking was forbidden.

Appendix 1- HPAI H5N8 in the Czech Republic

HPAI H5N8 in the Czech Republic - Summary table - in total 39 outbreaks (1x HPAi H5N5 - captive birds, 38 HPAI H5N8 - poultry farms) in 11 Regions										
Order number	Region	City / Vilage	Type of breeding	Suspicion date	Date of confirmation AI H5	Date of confirmation HPAI H5N8	Date of culling in outbreak	Preventive culling in protection zone date	Final disinfection date	Surveillance zone applicable until
1.	Southern Moravian Region	Moravský Krumlov (district Znojmo)	back-yard	02/01/2017	04/01/2017	05/01/2017	04/01/2017	7. - 9.1.2017	12/03/2017	13/03/2017
2.	Southern Moravian Region	Němčice u Ivančic (district Brno country)	back-yard	03/01/2017	04/01/2017	05/01/2017	05/01/2017	7. - 11.1.2017	25/02/2017	
3.	Southern Moravian Region	Letkovice u Ivančic (district Brno country)	back-yard	04/01/2017	05/01/2017	06/01/2017	05/01/2017	7. - 11.1.2017	25/02/2017	
4.	Southern Moravian region	Brod nad Dyjí (district Břeclav)	back-yard	06/01/2017	07/01/2017	08/01/2017	08/01/2017	-	21/01/2017	13/03/2017
5.	Central Bohemian Region	Lázně Toušeň (district Praha - East)	back-yard	07/01/2017	07/01/2017	08/01/2017	09/01/2017	-	21/01/2017	03/03/2017
6.	Southern Bohemian Region	Chotčiny (district Tábor)	back-yard	12/01/2017	12/01/2017	13/01/2017	13/01/2017	-	20/01/2017	21/02/2017
7.	Southern Bohemian Region	Libějovice (district Strakonice)	back-yard	15/01/2017	16/01/2017	16/01/2017	17/01/2017	-	20/01/2017	20/02/2017

8.	Southern Bohemian Region	Sedlečko u Soběslavě (district Tábor)	back-yard	17/01/2017	18/01/2017	19/01/2017	19/01/2017	-	31/01/2017	3.3.2017
9.	Region of Olomouc	Lověšice (district Přerov)	back-yard	20/01/2017	20/01/2017	23/01/2017	21/01/2017	-	07/02/2017	3.3.2017
10.	Southern Bohemian Region	Blatenská ryba, s.r.o. (district Strakonice)	commercial CZ 31047577	25/01/2017	25/01/2017	26/01/2017	26/01/2017	-	07/02/2017	10/03/2017
11.	Region of Liberec	Kadeřavec (district Semily)	back-yard	24/01/2017	25/01/2017	26/01/2017	26/01/2017	-	13/02/2017	03/03/2017
12.	Moravia - Silesian Region	Ostrava - Svinov (district Ostrava)	back-yard	28/01/2017	28/01/2017	29/01/2017	29/01/2017	-	23/02/2017	6. 3. 2017
13.	Region of Ústí nad Labem	Bílence (district Chomutov)	back-yard	30/01/2017	30/01/2017	31/01/2017	31/01/2017	-	17/02/2017	3.3.2017
14.	Southern Bohemian Region	Ledenice (district České Budějovice)	back-yard	30/01/2017	31/01/2017	01/02/2017	01/02/2017	-	09/02/2017	13.3.2017
15.	Southern Bohemian Region	Vlachovo Březí (district Prachatice)	commercial CZ 31117137	30/01/2017	31/01/2017	01/02/2017	01/02/2017	-	08/02/2017	13/03/2017
16.	Central Bohemian Region	Kostelec nad Labem (district Mělník)	back-yard	03/02/2017	03/02/2017	04/02/2017	04/02/2017	-	14/02/2017	13.3.2017
17.	Region of Pardubice	Koldín (district Ústí nad Orlicí)	back-yard	03/02/2017	04/02/2017	05/02/2017	05/02/2017	-	09/02/2017	10.3.2017
18.	Moravia - Silesian Region	Orlová (district	back-yard	04/02/2017	04/02/2017	05/02/2017	05/02/2017	-	20/02/2017	13/03/2017

		Karviná)								
19.	Region of Liberec	Janův Důl (district Liberec)	back-yard	03/02/2017	04/02/2017	05/02/2017	05/02/2017	-	14/02/2017	10/03/2017
20.	Central Bohemian Region	Hlásná Třebáň (district Beroun)	back-yard	04/02/2017	04/02/2017	05/02/2017	06/02/2017	-	17/02/2017	10.3.2017
21.	Southern Bohemian Region	Blatenská ryba, s.r.o., farm Mačkovská (district Strakonice)	commercial CZ 31047555	05/02/2017	05/02/2017	06/02/2017	07/02/2017	-	11/03/2017	e 13.3.2017
22.	Central Bohemian Region	Záryby (district Praha - východ)	back-yard	05/02/2017	06/02/2017	07/02/2017	08/02/2017	-	21/02/2017	13/03/2017
23.	Southern Bohemian Region	Horní Lhota (district Jindřichův Hradec)	back-yard	06/02/2017	06/02/2017	07/02/2017	07/02/2017	-	10/02/2017	13.3.2017
24.	Central Bohemian Region	Blažejovice (district Benešov)	back-yard	07/02/2017	07/02/2017	08/02/2017	08/02/2017	-	23/02/2017	13/03/2017
25.	Southern Bohemian Region	Nová Ves nad Lužnicí (district Jindřichův Hradec)	back-yard	07/02/2017	08/02/2017	09/02/2017	09/02/2017	-	13/02/2017	16/03/2017
26.	Region of Hradec Králové	Žďár nad Orlicí (district Rychnov nad Kněžnou)	back-yard	08/02/2017	09/02/2017	11/02/2017	10/02/2017	-	10/03/2017	14/03/2017

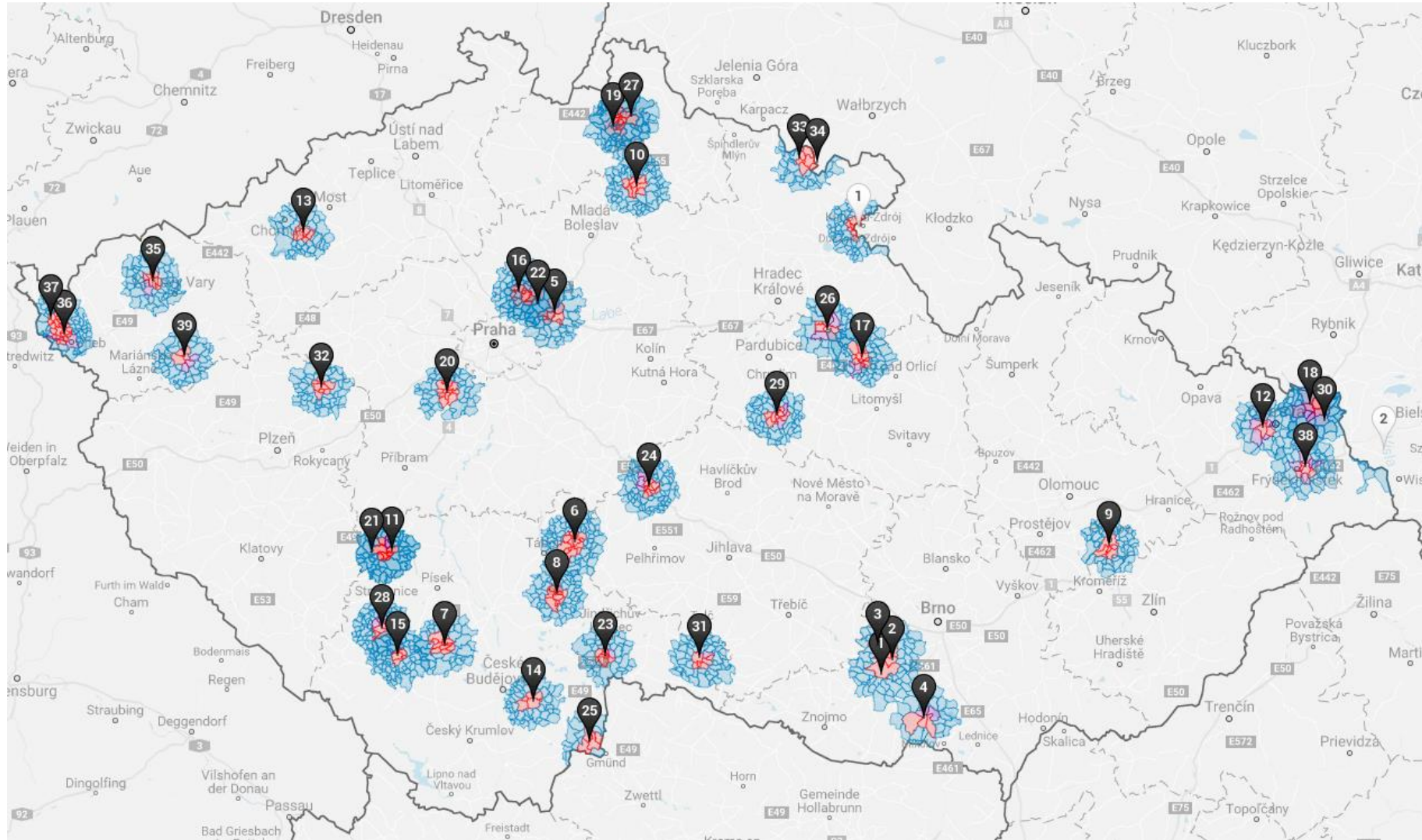
27.	Region of Liberec	Ruprechtice - ZOO Liberec (district Liberec)	captive birds	09/02/2017	10/02/2017	13.2.2017 - HPAI H5N5 in dead swan, 16.2.2017 - HPAI H5N5 in pelican	10/02/2017	-	17/03/2017	22/03/2017
28.	Southern Bohemian Region	Volyně (district Strakonice)	back-yard	11/02/2017	13/02/2017	13/02/2017	13/02/2017	-	21/02/2017	20.3.2017
29.	Region of Pardubice	Ochoz (district Chrudim)	back-yard	13/02/2017	14/02/2017	15/02/2017	14/02/2017	-	21/02/2017	20.3.2017
30.	Moravia - Silesian Region	Doubrava (district Karviná)	back-yard	18/02/2017	20/02/2017	21/02/2017	21/02/2017	-	08/03/2017	30.3.2017
31.	Southern Bohemian Region	Dačice (district Jindřichův Hradec)	back-yard	21/02/2017	22/02/2017	23/02/2017	23/02/2017	-	01/03/2017	31/03/2017
32.	Region of Plzeň	Bohy (district Plzeň - sever)	back-yard	21/02/2017	22/02/2017	23/02/2017	22/02/2017	-	06/03/2017	24/03/2017
33.	Region of Hradec Králové	Bernartice 1 (district Trutov)	back-yard	21/02/2017	23/02/2017	24.2.2017 (u kachny virus nezjištěn - jen u slepic)	23/02/2017	-	01/03/2017	27/03/2017
34.	Region of Hradec Králové	Bernartice 2 (district Trutov)	back-yard	22/02/2017	23/02/2017	24/02/2017	23/02/2017	-	01/03/2017	27/03/2017
35.	Region of Karlovy Vary	Božičany (district Karlovy Vary)	back-yard	24/02/2017	24/02/2017	25.2.2017 (u kachny virus nezjištěn - jen u slepic)	25/02/2017	-	06/03/2017	03/04/2017
36.	Region of Karlovy Vary	Poustka (district Cheb)	commercial CZ 41007967	27/02/2017	27/02/2017	28/02/2017	02/03/2017	-	20/03/2017	03/04/2017

37.	Region of Karlovy Vary	Klest (district Cheb)	commercial CZ 41007956	27/02/2017	27/02/2017	28/02/2017	2. 3.2017	-	09/03/2017	
38.	Moravia - Silesian Region	Dobrá (district Frýdek-Místek)	back-yard	08/03/2017	09/03/2017	10/03/2017	10/03/2017	-	23/03/2017	10/04/2017
39.	Region of Karlovy Vary	Poseč (district Karlovy Vary)	back-yard	21/03/2017	21/03/2017	22/03/2017	23/03/2017	-	04/04/2017	

HPAI H5N8 in the Czech Republic - positive wild birds						
Poř.č.	KVS	Místo	Datum potvrzení AI H5	Datum potvrzení HPAI H5N8	Druh zvířete	Počet uhynulých zvířat
1	Southern Moravian Region	Ivančice	04/01/2017	05/01/2017	swan	2
2	Region of Olomouc	Olomouc	12/01/2017	13/01/2017	swan	1
3	Capital city Prague	Praha	14/01/2017	14/01/2017	swan	1
4	Region of Olomouc	Olomouc	13/01/2017	16/01/2017	swan	1
5	Capital city Prague	Praha	16/01/2017	17/01/2017	swan	1
6	Southern Bohemian Region	dam Jordán, district Tábor	17/01/2017	18/01/2017	swan, duck	2
8	Region of Hradec Králové	Náchod - Babí	17/01/2017	18/01/2017	duck	1
9	Region of Hradec Králové	Hradec Králové	19/01/2017	20/01/2017	swan	1
10	Central Bohemina Region	Kolín	20/01/2017	21/01/2017	swan	1
	Region of Hradec Králové	Hradec Králové	20/01/2017	21/01/2017	swan	1
12	Capital city Prague	Praha	21/01/2017	23/01/2017	swan	5
13	Southern Bohemian Region	České Budějovice	24/01/2017	24/01/2017	swan	1
14	Southern Bohemian Region	České Budějovice	24/01/2017	24/01/2017	swan	1
15	Moravia-Silesian Region	Jilešovice	23/01/2017	25/01/2017	swan	1
16	Region of Olomouc	Javorník	23/01/2017	25/01/2017	swan, goose	2

17	Region of Zlín	Otrokovice	24/01/2017	27/01/2017	duck	1
18	Region of Zlín	Staré město u Uherského Hradiště	24/01/2017	27/01/2017	swan	1
19	Southern Bohemian Region	České Budějovice	24/01/2017	25/01/2017	swan	1
20	Southern Bohemian Region	Písek	24/01/2017	25/01/2017	swan	1
21	Region of Olomouc	Přerov	25/01/2017	29/01/2017	swan	1
22	Southern Bohemian Region	Krtějov - Dvorce u Tučap	27/01/2017	29/01/2017	swan	1
23	Southern Bohemian Region	Roudná u Soběslavi	27/01/2017	29/01/2017	swan	1
24	Moravia-Silesian Region	Opava - Stříbrné jezero	28/01/2017	29/01/2017	swan	1
25	Southern Bohemian Region	Veselí na Lužnici	28/01/2017	29/01/2017	swan	1
26	Southern Bohemian Region	Katovice	31/01/2017	01/02/2017	swan	1
27	Region of Hradec Králové	Hradec Králové	01/02/2017	02/02/2017	swan	1
28	Southern Bohemian Region	Lásenice	03/02/2017	04/02/2017	duck	1
29	Region of Karlovy Vary	řeka Ohře, okres Cheb	02/02/2017	03/02/2017	swan	1
30	Southern Bohemian Region	Jindřichův Hradec	02/02/2017	03/02/2017	duck	1
31	Region of Pardubice	Pardubice	03/02/2017	06/02/2017	swan	1
32	Southern Bohemian Region	Třeboň		05/02/2017	heron	1
33	Region of Ústí nad Labem	Kadaň	03/02/2017	04/02/2017	swan	2
34	Region of Karlovy Vary	river Ohře, district Karlovy Vary	07/02/2017	08/02/2017	swan	3
35	Region of Karlovy Vary	Cheb	07/02/2017	08/02/2017	swan	1
36	Moravia-Silesian Region	Závada nad Olší	08/02/2017	13/02/2017	swan	3
37	Region of Pardubice	Chvaletice	09/02/2017	11/02/2017	goose	1
38	Region of Liberec	Česká Lípa	10/02/2017	11/02/2017	heron	1
39	Region of Vysočina	Bolechov	22/02/2017	24/02/2017	duck	1
40	Region of Vysočina	Havlíčkův Brod	22/02/2017	24/02/2017	duck	1
In total						51

Appendix 2 - HPAI outbreaks and established restricted zones map of the Czech Republic



1	Moravský Krumlov	Southern Moravian Region
2	Němčice u Ivančic	Southern Moravian Region
3	Letkovice u Ivančic	Southern Moravian Region
4	Brod nad Dyjí	Southern Moravian Region
5	Lázně Toušeň	Central Bohemian Region
6	Chotčiny	Southern Bohemian Region
7	Libějovice	Southern Bohemian Region
8	Sedlečko u Soběslavě	Southern Bohemian Region
9	Lověšice	Region of Olomouc
10	Kadeřavec	Southern Bohemian Region
11	Blatná – commercial holding	Southern Bohemian Region
12	Ostrava -Svinov	Moravia-Silesian Region
13	Bílence	Region of Ústí nad Labem
14	Ledenice	Southern Bohemian Region
15	Vlachovo Březí – commercial holding	Southern Bohemian Region
16	Kostelec nad Labem	Central Bohemian Region
17	Koldín	Region of Pardubice
18	Orlová	Moravia-Silesian Region
19	Liberec - Janův Důl	Region of Liberec
20	Hlásná Třebáň	Central Bohemian Region
21	Blatná (farm Mačkovská) – commercial holding	Southern Bohemian Region
22	Záryby	Central Bohemian Region
23	Horní Lhota	Southern Bohemian Region
24	Blažejovice	Central Bohemian Region
25	Žofina Huť - Nová Ves nad Lužnicí	Southern Bohemian Region
26	Žďár nad Orlicí	Region of Hradec Králové
27	ZOO Liberec, Ruprechtice	Region of Liberec
28	Volyně	Southern Bohemian Region
29	Ochoz	Region of Pardubice
30	Doubrava u Orlové	Moravia-Silesian Region

Annex G – Applied prevention and control measures on avian influenza Denmark

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1. Scope

This document provides a brief overview of specific prevention and control measures applied in Denmark during the autumn-winter (November 2016 - April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
3/11-2016	Outbreak of HPAI in poultry in Hungary	9/11/2016: -Activation of the national disease control centre	General public, poultry industry and poultry associations
5/11-8/11 2016	Findings of HPAI in dead wild birds in the neighbouring countries (Poland, Germany)	-Press release to increase the public awareness of avian influenza, biosecurity and how to contact The Danish Veterinary and Food Administration (DVFA) in case of findings of dead wild birds.	
8/11/2016	First suspicion of HPAI in dead wild birds in Denmark.	Also updated information on the DVFA's homepage, which continued during the AI crisis.	
10/11/2016	First detection of HPAI H5N8 in a wild bird in Denmark	10/11/2016: First meeting in the national AI expert group 10/11/2016: Decision: No zones established (only mandatory in case of subtype H5N1) 11/11/2016:	General public, poultry industry and poultry associations

		Fairs, markets, shows or other gatherings of poultry or other captive birds were prohibited in the whole country. Recommendation of keeping poultry and other captive birds indoors.	
12/11-2016	Import of hatching eggs from Germany from HPAI H5N8 infected breeding holding.	13/11-2016 Destruction of all hatching eggs at the hatchery, followed by cleansing and disinfection.	General public, poultry industry and poultry associations
14/11/2016	Risk assessment by the Danish Veterinary Institute with recommendation of keeping poultry indoors.	14/11/2016: Mandatory housing order for poultry and other captive birds – derogation for ducks, geese and ostridges – and recommendations on hygienic measures to be taken by poultry owners to prevent the introduction of AI –cleaning and disinfection or change of footwear and hand hygiene.	General public, poultry industry and poultry associations
15/11/2016	Risk assessment by the DVFA in association with trade (biosecurity): "High risk level"	16/11/2016: Imposing of a control campaign of the cleansing and disinfection standard of foreign poultry transport vehicles in connection with partial slaughtering at the Danish border.	Poultry industry
21/11/2016	First outbreak in poultry in Denmark (backyard poultry flock)	21/11/2016 Stamping out of all poultry at the infected holding, including one contact flock (neighbour) Establishing of a protection and surveillance zone of 3 and 10 km around the holding and implementation of the necessary measures in accordance with Council Directive 2005/94/EC.	General public, poultry industry and poultry associations
January 2017	Contact with the Danish association of racing pigeons and falconers.	28/01/2017: Pigeons and birds of prey were allowed to do exercise flights based on a risk assessment.	General public and poultry associations
7/2-2017	First outbreak in "other captive birds" in Denmark. (Open air museum)	7/2-2017 Stamping out of all birds at the infected holding. After a risk assessment it was decided not to establish any zones as the birds were only kept for exhibition and had not had any contact to other poultry holdings.	General public, poultry industry and poultry associations.
10/4-2017	The housing order has continuously been evaluated in the AI expert group during the HPAI crisis, and in the start of April the	12/4-2017 Total lifting of housing order and fairs, markets, shows etc. of poultry and other captive birds were again allowed.	General public, poultry industry and poultry associations

	<p>situation looked more favourable due to a reduction in the detection of infected wild birds. At the same time the DVFA was aware of the animal welfare issue, which was starting to grow due to the rising temperatures. Many of the neighbouring countries had started to reduce or lift the housing order.</p>	<p>Termination of the control campaign of the cleansing and disinfection standard of foreign poultry vehicles.</p>	
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3. Increasing awareness of the stakeholders and the general public

During the HPAI crisis the DVFA continuously informed the public and stakeholders about the situation using press releases, news and facts updates on the Danish Veterinary and Food administration (DVFA) homepage, and chat sessions and videos on Facebook. An expert from the DVFA several times explained the situation and measures to be taken to the media (television and radio). The staff of the DVFA call centre was prepared for answering questions from the public (via FAQ's) and received hundreds of calls and Emails about AI. Staff from the Veterinary Inspection Units attended meetings organised by poultry associations, both commercial and hobby sectors, all over the country in order to inform about the AI situation.

On 27 January 2017, the DVFA introduced an app for smartphones called "FugleinfluenzaTip" ("Bird flu Tip") in order to make it easier for the public to notify the DVFA in case of findings of dead wild birds. This app allows citizens to send exact data about findings of dead wild birds including the location and a photo. The submitted data are directly transferred to the DVFA wild bird database and allocated for collection by the Veterinary Inspection Units. During the HPAI crisis, the collection of dead wild birds was done with assistance from the Danish Emergency Management Agency.

The app proved to be very useful. The exact location of the suspected bird makes the collection of the bird easier, and the photo allows for rejection of a bird if the species is not relevant, or if it's not suitable for analysis due to e.g. decomposition. The app also makes the work for the staff of the DVFA call centre easier and speed up the notification and collection process.



1: The DVFA wild bird database, photo and location (coordinates are not shown here, but they are available)

As a result of the risk assessment, which recommended the housing of all poultry and the introduction of biosecurity measures, the DVFA held a meeting with the commercial poultry industry. The industry immediately contacted all their members supporting all the measures given by the DVFA and circulated a list of biosecurity measures to be followed by the commercial poultry holders.

Representatives from the poultry industry participated in meetings in the AI expert group, giving the opportunity to exchange useful information and reach the stakeholders quickly.

The DVFA met with a couple of hobby poultry associations in order to discuss the housing order. Those meetings were of great value for both parties and prevented conflicts from occurring. The greatest challenge was to reach the more loosely organized hobby segment, which mostly was active in closed Facebook groups. The DVFA organized chat sessions with those groups, however, the success was limited.

The DVFA made contact with the Danish Hunter association in order to inform about the biosecurity measures to be taken when hunting during the AI crisis.

<http://www.jaegerforbundet.dk/vildt/traekvildt/viden-om-traekvildt/fakta-om-fugleinfluenza/>

Selected DVFA information from Facebook:

<https://www.facebook.com/foedevarestyrelsen/videos/1357892954232129/>

<https://www.facebook.com/foedevarestyrelsen/videos/1372276246127133/>

<https://www.facebook.com/foedevarestyrelsen/photos/a.459465110741589.103374.193742700647166/1445384772149613/?type=3&theater>

4. Housing order

Due to a risk assessment from the Danish Veterinary Institute with recommendation of keeping poultry inside, the housing order was implemented on 14 November 2016. The housing order was applicable for all production categories including zoos, professional and non-professional

poultry holdings including other captive birds. The definition of housing: poultry/other captive birds should be kept inside or fenced under solid roof (cover with a tarpaulin was acceptable).

The housing order was applicable for the whole country, as the DVFA considers Denmark as one-risk area due to its small size, the geographical position with many resting migratory birds, the long coast line and wide areas with wetlands and fjords. Derogations: Ducks, geese, game birds and ostriches may due to animal welfare reasons be kept outside but must be fed and watered under roof (general provision, which also applies during "peacetime").

The housing order was implemented based on a national legal act. Information was given to the public through the media (press release), the DVFA homepage and Facebook. Compliance with the housing order was checked during the DVFA routine control visits at poultry farms or in case of notification from a citizen, the police or the municipality. When the housing order was lifted information was again given through the media, the DVFA homepage and Facebook.

<https://www.retsinformation.dk/forms/R0710.aspx?id=184764>

[https://www.foedevarestyrelsen.dk/Nyheder/Aktuelt/Sider/Pressemeddelelser%202016/Fugleinfluenza-trussel får Fødevarestyrelsen til at stramme reglerne.aspx](https://www.foedevarestyrelsen.dk/Nyheder/Aktuelt/Sider/Pressemeddelelser%202016/Fugleinfluenza-trussel%20f%C3%A5r%20F%C3%B8devarerstyrelsen%20til%20at%20stramme%20reglerne.aspx)

During the HPAI crisis, 12 zoos applied for permission to vaccinate birds against avian influenza due to the housing order. Permission was given to all 12 zoos according to the terms in the Danish legal act on vaccination of zoo birds:

<https://www.retsinformation.dk/Forms/R0710.aspx?id=31639>

Not all birds in the zoos were necessarily vaccinated, though rare species and species normally kept outside seemed to be given priority. The housing order was lifted for the vaccinated birds immediately after vaccination had been done, due to animal welfare aspects.

On 28 January 2017, racing pigeons and birds of prey were allowed to do exercise flights, since the risk for these birds under controlled exercise flights were considered relatively low.

The decision that exercise flights of racing pigeons did not pose an increased risk for outbreaks of HPAI was based on the fact that 1) pigeons are less susceptible to AI, 2) exercise flights take place around the dovecote, and 3) pigeons will not intermingle with other highly susceptible birds and that feeding and watering takes place in-house.

The problem with birds of prey was raised as an animal welfare problem as those birds have to exercise on regular basis to maintain their flight capability. The flights were only allowed in close connection with the falconer and the birds would only have limited contact to other birds. Furthermore, the birds had to be fed indoor.

<https://www.retsinformation.dk/forms/R0710.aspx?id=186445>

The housing order has continuously been evaluated by the Danish AI expert group during the HPAI crisis. From the beginning of April, the findings of infected, wild birds reduced significantly. At the same time the DVFA was aware of the growing animal welfare problem. Increasing number of daylight hours caused rising temperatures and increased bird activity. In addition, several neighbouring countries had already reduced or lifted the housing orders. On the basis of these aspects the housing order was repealed on 12 April 2017.

[https://www.foedevarestyrelsen.dk/Nyheder/Aktuelt/Sider/Pressemeddelelser_2017/Hønsene må komme ud.aspx](https://www.foedevarestyrelsen.dk/Nyheder/Aktuelt/Sider/Pressemeddelelser_2017/Hønsene_må_komme_ud.aspx)

5. Strengthening biosecurity measures (other than housing order)

On 11 November 2016, fairs, markets, shows and other gatherings of poultry or other captive birds were prohibited. Information to the public was given in a press release, on the DVFA homepage and in a legal act. The DVFA also made contact to bird/poultry associations who planned fairs, markets etc.

On 16 November 2016, Denmark imposed a control campaign on the cleansing and disinfection standards of foreign poultry transport vehicles and crates at the border between Denmark and Germany. The control was performed on empty foreign poultry vehicles going to Danish poultry holdings in connection with partial collection of broilers for slaughter. The background for this action was that Denmark during earlier control campaigns had found that many of the crates for poultry transports were heavily contaminated with poultry droppings. As these crates are brought into the poultry houses there is a risk of faecal contamination of the house environment. If the crates prior to these transports had been used for the transport of broilers in the incubation phase of avian influenza (AI) there may be a risk for the introduction of avian influenza in poultry houses where only a part of the broiler population are removed. The campaign ended on 12 April 2017. During the campaign, 420 controls were done. The majority of the inspected vehicles and crates were found contaminated with poultry droppings and consequently denied entry into Denmark until a new cleansing and disinfection had been performed before arrival at the border with a satisfying result. 13 vehicles were denied entry into Denmark with no opportunity to rewash at the facility close to the border, because of heavy contamination with poultry droppings.

According to article 18 (7) in Council Directive 2009/158/EC "The vehicles and, if they are not disposable, the containers, crates and cages shall, before loading and unloading, be cleansed and disinfected in accordance with the instructions of the competent authority of the Member State concerned".

The industry in Denmark runs cleaning and disinfection facilities at slaughterhouses, at the border to Germany, at assembly centres, and at rendering plants. The availability and capacity of these facilities is sufficient.

6. Preventive culling

On 12 November 2016, the DVFA was contacted by the German veterinary authority concerning Danish import of hatching eggs from a German HPAI infected farm. All hatching eggs/day-old chicks originating from the German breeder flock at the Danish hatchery including eggs/day-old chicks received within 21 days (incubation time) were subsequently preventively destroyed/killed based on article 15 in council Directive 2005/94. The destruction/killing was done using CO₂ gassing. In total, 540,450 eggs/day-old chicks were destructed/killed over 3 days by staff from the DVFA with assistance from the Danish Emergency Management Agency. No testing of HPAI was performed on the hatching eggs/day-old chicks.

In connection with the Danish outbreak in at backyard poultry flock on 21 November 2017, one neighbour backyard flock (contact flock) within few meters from the infected flock was preventively killed based on article 15 in council Directive 2005/94. This killing was done in connection with the killing of the infected flock. The animals (two peacocks, 27 hens and two doves) were stunned by an intraperitoneal injection of pentobarbital followed by dislocation of the neck or a blunt stroke in the head (peacocks). All samples collected from the contact flock tested negative for HPAI.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation)

Regional stand still, beyond the restriction zones specified in the EU Regulation, was not applied in Denmark.

8. Derogations on restriction zone implementation after risk assessment

Derogations from the restriction zones were not applied in the event of the outbreak in the backyard poultry flock on 21 November 2016.

Regarding the outbreak in "other captive birds" in an open-air museum on 7 February 2017, it was decided not to establish any zones based on a risk assessment in accordance with article 16 (2) in Council Directive 2005/94. There were no commercial poultry holdings within four km from the open-air museum.

9. Hunting

Hunting has been allowed throughout the AI crisis in Denmark. The DVFA judged that the benefits from hunting by reducing the population of especially ducks were greater than the risk of spread of AI. By reducing the population of wild birds, it was assumed that the infection pressure would also be reduced. The ornithologist who was a member of the AI expert group referred to investigations documenting that birds in hunting areas only conducted limited movements during the hunt. Furthermore, the AI infection seemed to be widespread in the wild bird population in Denmark, and all poultry was kept indoors.

The DVFA was of course aware of the risk of spreading the infection from the hunting field into domestic poultry and other captive birds. Further, the DVFA put a lot of effort into informing the hunters on the relevant biosecurity measures, which had special importance to those keeping poultry at home.

10. Zoning in other MS countries

Denmark followed the measurements in the closest neighbouring countries including the implementation of zones. Due to the large geographic size of Germany, only measures in the 'Länder' closest to Denmark, was followed. The DVFA kept a close contact to the Veterinary authority in Schleswig-Holstein.

Due to the great similarity between Danish and Dutch poultry industry and traditions of keeping poultry as a hobby, the DVFA also kept a close contact to the Dutch veterinary authorities, with whom especially restrictions and derogations from these were discussed.

11. Thresholds for "early warning"

The AI early warning parameters requiring the owner of the animals to notify are:

- Drop in feed and water intake by more than 20% in 24 hours.
- Drop in egg production by more than 5% for more than two consecutive days.
- Mortality rate higher than 3% in any unit during a three-day period.

Early warnings are notified to the DVFA, and samples are collected from ten birds of the flock for virological examination.

References (if relevant)

Annex H – Applied prevention and control measures on avian influenza France

Mohamed Boukottaya, Anne Bronner, Alexandre Fediaevsky
Office of animal health

1. Scope

This document provides a brief overview of specific prevention and control measures applied in FRANCE during the autumn-winter (October 2016- May 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Three levels of risk of AI transmission from wild birds to poultry are defined in the French regulation: negligible/moderate/high (Arrêté du 16/03/2016). The levels of risk are defined according to the number of AI outbreaks occurring in wild birds and their proximity to France or to the migration pathways concerning the French territory. Each of the 3 levels of AI risk implies specific measures for AI surveillance and prevention in wild birds, captive birds and domestic poultry, as described in Arrêté du 16/03/2016.

The French regulation defines "specific risk" areas in the national territory where the risk of AI transmission from wild birds to domestic poultry is considered as higher than in the rest of France (Arrêté du 16/03/2016). The "specific risk" areas are defined according to 1/ the presence of large wetlands with a high density of autochthonous wild birds and located on the major routes of bird migrations in Europe and 2/ a high density of domestic poultry farms in proximity with those wetland areas.

The general principle is that the level of risk for AI may be adopted for the whole territory or only for the "specific risk" areas according to the epidemiological situation.

<https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000032320450&categorieLien=id>

<https://www.anses.fr/fr/system/files/SANT2006sa0053.pdf>

Table 1: Overview of main communication actions

Date	Event that triggered action	Type of action	Target audience (if applicable)
16/11/2016	wild bird cases in neighbouring country with France (Germany, Switzerland)	Due to the risk of infection in wildlife, increase of the epizootic risk from negligible to moderate throughout the country, and from moderate to high in wet areas (at risk areas). In wetland areas, confinement of backyard flocks with no derogation, confinement of commercial flocks (with derogation under defined conditions), and strengthening biosecurity. reinforcement of wildfowl surveillance : clinical surveillance, implementation of an active surveillance targeted on staging areas for migrating birds In high risk areas, interdiction of bird exhibition and assembly, pigeon competition and release of game birds. Interdiction of participation in such events for birds coming from high risk areas. Restriction of the use of decoy birds for waterfowl hunting	Backyard keeper, poultry farmers, game breeder
26/11/2016	First case detected in captive wild bird = decoy birds (dept 62)	epidemiologic investigation and stamping out of all the decoy birds in the outbreak and in a contact owner of decoy birds ; implementation of a ten kilometers restriction zone to investigate poultry flocks in the area	
02/12/2016	First poultry outbreak (dept 81)	PZ (3km) and SZ (10 km) implementation, stamping out in the infected farms, prohibition of bird movement in the PZ and SZ, prohibition of hunting in PZ/SZ, epidemiological investigation	
04/12/2016	the second poultry outbreak (dept 81)	same actions around the new outbreak	
05/12/2016		Increase of the epizootic risk from moderate to in all the country: application of the measures described for high risk area	Backyard keeper, poultry farmers, game breeder
	many outbreaks in the dept 32, 47, 65	Stamping out of five contact flocks in three departments (32, 47, 65) which came from the farm where the second outbreak occurred. The birds were transferred before the adoption of the restriction zone. Adoption of PZ (3km) and SZ (10 km) around each of these secondary outbreaks with restriction of movements and epidemiological investigation, stamping out in the infected farms, prohibition of bird movements in PZ and SZ and prohibition of hunting in PZ/SZ. Further secondary cases were detected in all the PZ and SZ, particularly in areas where densities of palmiped farms were high (dept 32), leading to a progressive development of the areas under restrictions from East to West. Initially some departments adopted a complete ban on hunting but the ban became limited to waterfowl hunting only. In the restricted areas, movements of birds to slaughterhouse were permitted, with clinical inspection at farm for galliform flocks and negative PCR results for palmiped flocks. Palmipeds at their last stage of growing (12 to 15 weeks) were allowed to move to force-feeding units after negative PCR test. The transport was allowed only if 1/ the force-feeding units were in the restriction zone and if 2/ the slaughterhouse was in the restricted zone or close to. Specific biosecurity measures were applied for these movements.	

04/01/2017	89 outbreaks extension of AI infection in many poultry farms in the South West	<p>Extension of outbreaks towards West (departement 40 and 64), large contiguous areas under restriction with high densities of duck farms.</p> <p>Implementatin of the preventive culling strategy in the large area under restriction. Slaughters targeted mostly free-range palmipeds in PZ. Preventive culling was organised in slaughterhouses, transports to the slaughterhouses were subject to specific biosecurity measures.</p> <p>Implementation of a large temporary control zone (TCZ) around the large SZ/PZ to control movements and introduction of palmipeds.</p> <p>In low duck density areas (East of 32, 81, 47) the spreading of the infection was under control.</p>	
10/02/2017	Anses opinion	<p>Release of the Anses opinion on the preventive culling strategy. Culling of all commercial poultry flock within a radius of 1km from outbreaks, extension of preventive culling for palmipeds within a distance of 3 to 10 km from an outbreaks depending on the finding of secondary cases or not.</p> <p>Meanwhile, in the Eastern parts of the restriction areas where the epidemic stopped (outbreak depopulated, 3 weeks without a case, no suspicion and surveillance of commercial farms fulfilled) the galliform farms were allowed to introduce new flocks.</p>	
	Anses opinion	<p>Ministerial act (31/3/17) to implement a collective fade out of palmiped farms in the large restriction area (covering parts of departments 31,32,40, 64,65) until the 29th of May, cleaning and disinfection of all the emptied poultry farms, authorization to keep birds only if they tested negative for AI based on regular testing.</p> <p>Specific biosecurity for the transport of palmipeds.</p> <p>Increased level of biosecurity measures for breeding flocks.</p> <p>Surveillance of palmipeds after their reintroduction in the restriction area (after the 29th of May).</p>	
12/04/2017	No case in wild bird since	Decrease of the AI risk level from high to moderate at the national level based on Anses Opinion 2016-SA-0245.	
04/05/2017		Decrease of the AI risk level from moderate to negligible at the national level based on Anses Opinion 2016-SA-0245.	

3. Increasing awareness of the stakeholders and the general public

Communication with the general public:

- The Ministry of agriculture's website is regularly updated. There is an HPAI section on the Ministry's website with 6 different themes: Introduction of HPAI, outbreaks follow-up, regulated zones, measures, export, the Pact.
- Weekly update reports presenting avian influenza situation in France and Europe (<https://plateforme-esa.fr/>) with public access
- Communication through the press: regular press releases and press conferences.

Communication with the professional public:

- Daily information of stakeholders (vet services, national organizations of farmers, scientists) about the number and localisation of outbreaks (in farms) and cases (in captive wild birds), and about clinical suspicions in palmipeds (considered as likely to be confirmed).
- Newsletter every two weeks intended for professional organizations: current news, rules and regulations, biosecurity measures and teaching sheets;
- Flyers about biosecurity measures and rules for barckyards and hunting;

http://agriculture.gouv.fr/rechercher?search_api_views_fulltext=influenzaHYPERLINK
["http://agriculture.gouv.fr/rechercher?search_api_views_fulltext=influenza&sort_by=date_minagri"&HYPERLINK](http://agriculture.gouv.fr/rechercher?search_api_views_fulltext=influenza&sort_by=date_minagri)
["http://agriculture.gouv.fr/rechercher?search_api_views_fulltext=influenza&sort_by=date_minagri"so](http://agriculture.gouv.fr/rechercher?search_api_views_fulltext=influenza&sort_by=date_minagri)
[rt_by=date_minagri](http://agriculture.gouv.fr/rechercher?search_api_views_fulltext=influenza&sort_by=date_minagri)

Communicate with local authorities:

- Access for veterinary services to figures, tables and maps updated on a daily basis.
- Newsletter every two weeks intended for the decentralized services (mostly about rules and regulations);
- Language elements about HPAI control measures.

4. Housing order *(Description of the start/end dates, criteria used to decide on implementation/repealing, criteria used to define the area, scope (production categories and/or zoos, professional and/or non-professional preferably with links to relevant website, documents, etc.))*

- November 2016 : cases in wild birds in neighboring countries (Germany, Swiss) ==> passage from negligible to moderate risk level (all the national territory), and from moderate to high risk level in "specific risk" areas: 16/11/2016
- first case in captive wild bird (dept 62)= 26/11/2016
- first IA outbreak in domestic poultry ==> passage from moderate to high risk level in all the national territory : 05/12/2017
- many outbreaks of IA in the South West of France + high density of duck and goose farms in the infected area ==> 04/01/2017 implementation of the preventive culling strategy
- 12/04/2017: Decrease of the AI risk level from high to moderate at the national level. Housing order is lifted for farms outside "specific risk" areas.
- 04/05/2017: Decrease of the AI risk level from moderate to negligible at the national level. Housing order is lifted for farms in "specific risk" areas.

In "specific risk" areas, non commercial poultry flocks shall be housed without possibility of derogation when the AI risk level is considered as "moderate" or "high". The housing order is applied in areas outside from "specific risk areas" when the level of risk is considered as "high". The implementation of this measure can be difficult to assess due to legal restriction of entrance of inspectors in private parts of households. In commercial flocks, there is a possibility of derogation if keeping poultry indoor without access to an open-air range raises a welfare problem or for

maintenance of labels. The INAO, the organism in charge of delivering specific label for free-range poultry, adopted a resolution to allow indoor housing of birds without disqualification for a maximum period of 12 weeks. The derogation to housing order is given upon a satisfactory visit by a private veterinarian regarding the application of the biosecurity measures. A special attention should be given to the protection of the feed and the water in the open runs.

In free-range palmiped farms, the capacity of holding ducks inside a barn or a shelter is often very limited.

5. Strengthening biosecurity measures (other than housing order) *(Description of how was it done, was there a follow up to check the level of implementation (after communication by competent authority))*

Strict application of 08/02/2016 biosecurity regulation in farms

Main features of this act concern:

- On poultry farms, separation of the area for the visitors from the area for the production which hosts the production units and the storage units for material, feed, fluids,
- birds in each production unit should be of the same age,
- protection of production units by sanitary entrance,
- cleaning and disinfection after each flock departure and following period, maintenance of ranges and houses, protection of feed and water from wildlife, disposal of slurry
- Strengthening of biosecurity measures for transport (cleaning and disinfection of trucks)
- Disinfection of the wheels and lower parts of trucks at the entrance and exit of the farm

Inspection of implementation of biosecurity measures were done by the local veterinary inspectors based on a local risk assessment. In areas with high level of infection, staff was very much occupied by the management of the outbreaks.

6. Preventive culling

Since the beginning of the crisis, preventive culling of contact flocks or flocks with a strong clinical suspicion was done immediately. Contact flocks are defined by premises with direct and clear epidemiological link to an outbreak (animal movement, same breeder...) or in neighboring premises. Culling was made by private company or official vet teams according to availability and number of animals. The private company usually did the job in large holdings by using gazing or electrocution chain in compliance with public contact. By the end of December 2016, the disease was progressing rapidly towards the areas with the highest density of palmiped farms. The number of outbreaks to depopulate reduced the capacity to act quickly (sometimes up to one week between confirmation and stamping out)

7. Pre-emptive culling

In January a pre-emptive culling strategy was decided, in the areas under PZ and could be extended to areas under SZ or TCZ. It primarily targeted palmiped farms in open runs.

The strategy was submitted to Anses for emergency risk assessment. In February, the strategy has been modified to include galliform flocks in a 1km radius from the outbreaks and preventive culling in SZ was used if secondary cases were found in the initial PZ.

The preventive culling was done in slaughterhouses of proximity seized for that purpose. Animals were moved only if they showed no clinical sign. Trucks had to be covered and the itinerary validated. In some cases, preventive culling was done by staff from local authorities and by private vets, mostly in areas far from slaughterhouses or for very small flocks.

In addition some culling was ordered for palmipeds in growing units or fattening units that reached the age for transfer to forced-feeding units or to the abattoir but for which no transport could be organized to units in the restricted zones.

(Was it applied or not, criteria used to decide, which holdings (only contact holdings or all holdings in an area (specify the km radius))

8. Regional stand still (beyond the restriction zones specified in the EU Regulation)

A temporary controlled zone (TCZ) was adopted around surveillance zone in the areas where the virus was circulating at a high rate (departments 40, 64 and lately 47). In these areas, the introduction of palmipeds was forbidden, palmipeds already in place could move:

- from rearing to forced-feeding units if they presented negative PCR results
- from forced-feeding units to slaughterhouse, based on clinical surveillance.

The restriction zones were released when the zones were stabilized (no new outbreak). The zones concerned the department "40" (outside PZ and SZ) and a large TCZ in 10 km area around the SZ in the department "64".

(Was it applied or not, criteria used to decide, which region (describe using NUTS3 terminology))

9. Derogations on restriction zones implementation after risk assessment

In two outbreaks in wild captive birds (decoy birds in 62 and geese in 69) there was no PZ and SZ applied but instead a temporary restriction zone in a 10km radius which was left after surveillance of all commercial flocks in the areas.

(Was it applied or not, which region, criteria used to decide)

10. Hunting

Hunting had been firstly forbidden in PZ/SZ around the outbreaks but this restriction was reduced to the ban of waterfowl hunting in protection zone. Indeed, the spread of the infection was assumed to be mainly due to direct or indirect transmission from farm to farm. Besides, waterfowl are the main reservoir of the virus.

Conditions of derogation for the hunting of terrestrial game birds in restricted areas were introduced when the sanitary situation was stabilized (no new outbreaks in the area); the hunting in restricted area was allowed away from wetlands only. A derogatory system for the release of galliform game birds (pheasants and partridges) was adopted based on an agreement of the DDPP, including clinical visits, bird testing, compliance with biosecurity measures (control at regular intervals). There was no derogation for the release of ducks (Mallard ducks) and the transport of decoy birds was forbidden.

(Was it allowed, restricted or forbidden, criteria used to decide, if restricted (specify period, species groups))

11. Early detection *(What are the thresholds used in your country for increased mortality, reduction of food/water intake, reduction egg production)*

Alert criteria and thresholds for each poultry productions are described in the Arrêté 16/03/2016. The tables are currently under revision to better taken into account criteria for differential diagnosis.

12. Zoning (*What is your experience to follow the implementation of zones in other MSs?*)

13. Biosecurity (*Can you explain the availability of cleaning and disinfection facilities in your country? (linked to slaughterhouses, enough or not, ...)*)

References (if relevant)

- Regulation of 18 January 2008 : Technical and administrative measures for the control of avian influenza
- Biosafety Regulation (8 February 2016)
- level risk regulation: 16 March 2016
- council directive 2005/94/EC Community measures for the control of avian influenza and repealing Directive 92/40/EEC
- Avis ANSES 2017-SA-0011 / 2017-SA-0026 / 2017-SA-0028
- Anses opinion available on the webiste : www.anses.fr
- Ministerial act available on legifrance : www.legifrance.gouv.fr
- Technical instruction available on BO Agri (keyword influenza) : <https://info.agriculture.gouv.fr/gedei/site/bo-agri>

Annex I – Applied prevention and control measures on avian influenza Greece

Sokratis Perdikaris

Ministry of Rural Development and Food
 Directorate General of Sustainable Animal Production and Veterinary Services
 Directorate of Animal Health
 Department of Infectious and Parasitic Diseases

1. Scope

This document provides a brief overview of specific prevention and control measures applied in GREECE during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
<i>Dd/mm/yyyy</i>	<i>e.g. first wild bird finding (neighbouring country), first poultry outbreak, etc.</i>	<i>Increasing awareness, release housing order, repeal housing order (poultry confinement), strengthening biosecurity, implement regional stand still, implement preventive culling, implement derogations on restriction zone implementation after risk assessment and implement hunting</i>	<i>e.g. poultry associations, general public, etc.</i>
17-11-2016	Increased number of HPAI cases in poultry and wild birds in several European countries	Increasing awareness of stakeholders and the general public	Poultry associations, commercial and backyard poultry farmers, general public, environmental organizations, hunters' associations, management agencies of national parks, zoos
19-12-2016	First AI case in the country in a wild bird (Regional Unit of Evros)	Increasing awareness of stakeholders and the general public	Poultry associations, commercial and backyard poultry farmers, general public, environmental organizations, hunters' associations, management agencies of national parks, zoos
12-1-2017	First poultry outbreak in the country (Regional Unit of	Increasing awareness of stakeholders and the general public	Poultry associations, commercial and backyard poultry farmers, general public, environmental

	Arkadia)		organizations, hunters' associations, management agencies of national parks, zoos
25-1-2017	Second poultry outbreak in the country (Regional Unit of Arkadia)	Increasing awareness of stakeholders and the general public	Poultry associations, commercial and backyard poultry farmers, general public, environmental organizations, hunters' associations, management agencies of national parks, zoos
		Derogation for the movement of table eggs within the overlapped surveillance zone	One poultry holding located in the overlapped surveillance zone
26-1-2017	Third poultry outbreak in the country (Regional Unit of Rodopi)	Increasing awareness of stakeholders and the general public	Poultry associations, commercial and backyard poultry farmers, general public, environmental organizations, hunters' associations, management agencies of national parks, zoos
		Housing order at national level	Commercial and backyard poultry farmers
16-2-2017	Fourth and fifth poultry outbreaks in the country (Regional Units of Arkadia and Florina)	Increasing awareness of stakeholders and the general public	Poultry associations, commercial and backyard poultry farmers, general public, environmental organizations, hunters' associations, management agencies of national parks, zoos
23-3-2017	Last confirmed case of AI in the country in a poultry holding (Regional Unit of Kozani)	Increasing awareness of stakeholders and the general public	Poultry associations, commercial and backyard poultry farmers, general public, environmental organizations, hunters' associations, management agencies of national parks, zoos
		Repeal of housing order at national level after 1½ month since the last confirmed case of AI in Greece	Commercial and backyard poultry farmers

3. Increasing awareness of the stakeholders and the general public ((Brief description of the communication plan/activities in autumn-winter 2016-2017 (October 2016-April 2017) in relation to avian influenza (preferably with links to relevant website, documents, etc.))

In November, when the epidemiological situation of Avian Influenza (AI) in Europe started aggravating, the Central Competent Authority (CCA-Directorate of Animal Health/ Ministry of Rural Development and Food) issued its first relevant circular in order to a) inform official authorities (Local and Regional Veterinary Authorities, NRL, Central Forest Service etc.) about latest developments and point out the necessary actions to be taken b) increase awareness among stakeholders (poultry associations and all bodies actively interacting with wild birds) at national level. Similar circulars were issued after every significant event that followed in relation to avian influenza and in particular after poultry outbreaks and wild bird findings in Greece. In response to the circulars issued by the CCA and to the epidemiological situation of AI, Local and Regional Veterinary Authorities increased awareness among stakeholders and the general public at local/regional level by realising bulletins, communicating directly with commercial poultry farmers, visiting poultry holdings, informing hunter associations etc.

Moreover, a handout with general information about Avian Influenza and guidelines on biosecurity measures was prepared by the CCA and has been available for the stakeholders and the general public on the website of the Ministry of Rural Development and Food since 16/2/2017. (http://www.minagric.gr/images/stories/docs/agrotis/poulerika/metra_bioasfaleia_pthnon200217_new.pdf)

Likewise, the Hellenic Center for Disease Control & Prevention, which has been in close collaboration with the CCA from the onset of the AI epizootic, prepared handouts for poultry farmers, hunters, veterinarians, workers in the poultry sector etc. regarding self-protection measures and guidelines when handling birds.

(available on <http://www.keelpno.gr/el-gr/voσηματαθξματαυγειας/λοιμώδηνοσηματα/voσηματαπουμεταδιδονταιμέσωαναπνευστικούσουστ/avianinfluenzaah5n8.aspx>)

It should be noted that because of the limited number of AI cases in the country, no press releases were circulated at national level in order to avoid the general public's concern about poultry meat and egg safety that could lead to a subsequent drop in their consumption.

4. Housing order (*Description of the start/end dates, criteria used to decide on implementation/repealing, criteria used to define the area, scope (production categories and/or zoos, professional and/or non-professional) (preferably with links to relevant website, documents, etc.)*)

The housing order was published in the Government Gazette on 9/2/2017 after taking into account that a) the third poultry outbreak had been confirmed in the Regional Unit of Rodopi in northern Greece while the first and the second had been confirmed in the Regional Unit of Arkadia in southern Greece b) HPAI viruses had been detected in wild birds in different geographical areas all over the country c) backyard poultry holdings are scattered evenly across Greece and have significant risk of being infected.

(http://www.minagric.gr/images/stories/docs/agrotis/poulerika/ya258_10554_300117.pdf)

Based on the facts mentioned above it was assessed that the risk for the entire country was high and thus the housing order was imposed at national level. It included within its scope all poultry holdings (commercial and backyard) and all production categories; however, this order practically reflected mainly on backyard and free range/biological poultry holdings. Zoos and parks were not included because, firstly, there are only few of them in Greece and, secondly, mandatory biosecurity measures for reducing the risk of direct or indirect contact of other captive birds with wild birds have been in place and sufficiently implemented for years.

(http://www.minagric.gr/images/stories/docs/agrotis/poulerika/ya1503_2017_trop2_vioasfaleia.pdf)

Following a period of 1 ½ month without a confirmed AI case in Greece either in poultry or wild birds, the housing order at national level was revoked on 16/5/2017 (Government Gazette publication date) by also taking into account the epidemiological situation in Europe and neighbouring countries.

5. Strengthening biosecurity measures (other than housing order) (*Description of how was it done, was there a follow up to check the level of implementation (after communication by competent authority)*)

In Greece, certain mandatory biosecurity measures have been in place since 2008 in order to reduce the risk of virus incursion in poultry and other captive birds. These measures (ban of live bird open-air markets, shows and exhibitions, supply of feed and water indoors or under a shelter, use of nets, feed storage protection from wild birds, etc.) along with the poultry confinement at national level were considered adequate in order to reduce the risk in relation to avian influenza during the

autumn-winter period (October 2016- April 2017). Therefore, main priority of the veterinary authorities during this period was to ensure compliance with the established biosecurity measures by increasing awareness and by intensifying official controls primarily in commercial poultry holdings.

6. Preventive culling *(Was it applied or not, criteria used to decide, which holdings (only contact holdings or all holdings in an area (specify the km radius)))*

It was not applied.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation) *(Was it applied or not, criteria used to decide, which region (describe using NUTS3 terminology))*

It was not applied.

8. Derogations on restriction zone implementation after risk assessment *(Was it applied or not, which region, criteria used to decide)*

In Greece, a total of six AI poultry outbreaks were confirmed from January 2017 till March 2017. The three of them occurred in the Regional Unit of Arkadia, in close distance to each other, within a time framework of one month. As a result of this, in certain areas where the three restriction zones overlapped, duration of the applied measures had to be prolonged directly affecting two small size commercial poultry holdings located in the overlapped surveillance zones, one with laying hens and one with mainly chicken breeders. Following a request by the farmer with the laying hens and after assessing the risk, the LCA of Arkadia in collaboration with the CCA decided to grant authorization only for the movement of table eggs within the surveillance zone after ensuring application of the appropriate biosecurity measures. The decision was based on the presence of only one more commercial poultry farm within the surveillance zone and on the fact that the eggs would be dispatched to a packaging centre owned and exclusively used by the farmer himself. A request by the other farmer regarding movement of hatching eggs outside the surveillance zone in other Regional Units was rejected.

No derogations were granted in the other areas where poultry outbreaks occurred.

9. Hunting *(Was it allowed, restricted or forbidden, criteria used to decide, if restricted (specify period, species groups))*

It was not restricted or forbidden because these measures were considered disproportional compared to the epidemiological situation of avian influenza in the country. The impact of such measures on a large social group like hunters would have been significant, thus it was decided to reserve them as an option in case the situation with poultry outbreaks got out of control. Instead, guidelines on biosecurity and self-protection measures to be applied by hunters were included in the handouts already mentioned in paragraph 4.

10. Early Detection *(What are the thresholds used in your country for increased mortality, reduction of food/water intake, reduction egg production?)*

At this point the thresholds of Decision 2005/734/EC are still used in accordance with the national legislation currently in force.

11. Zoning *(What is your experience to follow the implementation of zones in other MSs?)*

Due to the large number of outbreaks, it was really difficult to follow the implementation of zones in other MSs based either on their reports or on the relevant Commission Decision with the delimitation of the zones and the areas comprised within them.

12. Biosecurity (*Can you explain the availability of cleaning and disinfection facilities in your country? (linked to slaughterhouses, enough or not, ...)*)

In order to be approved and able to operate, all slaughterhouses have to implement the provisions and meet the requirements of the hygiene package Regulations. In this context, they have a hygiene management system in place which is based on the HACCP principles. Essential component of this system is cleaning and disinfection and all food businesses within the country have access to the necessary facilities in order to conduct them.

References (if relevant)

Annex J – Applied prevention and control measures on avian influenza Hungary

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¹ Ministry of Agriculture

² National Food Chain Safety Office

1. Scope

This document provides a brief overview of specific prevention and control measures applied in HUNGARY during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
<i>Dd/mm/yyyy</i>	<i>e.g. first wild bird finding (neighbouring country), first poultry outbreak, etc.</i>	<i>Increasing awareness, release housing order, repeal housing order (poultry confinement), strengthening biosecurity, implement regional stand still, implement preventive culling, implement derogations on restriction zone implementation after risk assessment and implement hunting</i>	<i>e.g. poultry associations, general public, etc.</i>
No information			

3. Increasing awareness of the stakeholders and the general public

(Brief) description of the communication plan/activities in autumn-winter 2016-2017 (October 2016- April 2017) in relation to avian influenza (preferably with links to relevant website, documents, etc.)

Initiated by an integrator company we are (as competent authority) now performing roundtable debates and lectures to all relevant stakeholders (farmers especially) on animal health measures and biosecurity principles. Part of the industry welcomes the initiative but there are players who claim it unnecessary and even burden for them. We are investing a lot of our efforts to raise awareness especially in these areas.

4. Housing order

Description of the start/end dates, criteria used to decide on implementation/repealing, criteria used to define the area, scope (production categories and/or zoos, professional and/or non-professional) (preferably with links to relevant website, documents, etc.)

No information

5. Strengthening biosecurity measures (other than housing order)

Description of how was it done, was there a follow up to check the level of implementation (after communication by competent authority)

In the end of November in order to reduce the population in the already affected counties we ordered that the competent authority may authorize the direct transport of poultry for immediate slaughter within the given affected area after:

- clinical examination of the flock on the holding of origin is carried out by the official veterinarian within 24 hours of the time of dispatch;
- laboratory tests have been carried out of the flock on the holding of origin, with favourable result.

In addition we ordered an increased surveillance program for all transports from the whole Bács-Kiskun, Csongrád and Békés counties, and from Kunszentmárton district of Jász-Nagykun-Szolnok County).

6. Preventive culling and pre-emptive killing

Was it applied or not, criteria used to decide, which holdings (only contact holdings or all holdings in an area (specify the km radius))

Preventive killing (killing of contact/suspect farms) was applied as a basic principle, especially where it was in a densely populated area or it was a new area not infected before.

Pre-emptive killing (reducing the density of susceptible population) was applied in the densely populated areas on the eastern part of Bács-Kiskun County. In this area all susceptible population was culled as a principle. Case by case decisions were made not to apply the principle in case of very high value flocks. In most cases, these flocks remained unaffected during the epidemic.

The effectivity and usefulness of pre-emptive killing is justified by the fact that from the 600 000 birds culled because of this principle, 150 000 were coming from flocks that later tested to be positive (with no clinical signs). These measures up to 10% of all our outbreaks during the epidemic.

Another important measure in the densely populated area was the immediate slaughter of animals. These above measures played significant role in our fight against the spreading of the disease.

7. Standstill and zoning

Was it applied or not, criteria used to decide, which region (describe using NUTS3 terminology)

Protective zones were merged in case of the densely populated area in Bács-Kiskun County. This huge zone was not divided into parts and was not lifted for more than 3 months.

Surveillance zones were also enlarged in the case of closely affected areas (Békés and Csongrád Counties), and in the highly affected Bács-Kiskun County for more than half of the area of the county.

All measures taken were the same way for the "normal" 3-10 km and the enlarged zones as well.

8. Derogations on restriction zone implementation after risk assessment

Was it applied or not, which region, criteria used to decide

No information

9. Hunting

Was it allowed, restricted or forbidden, criteria used to decide, if restricted (specify period, species groups)

No information

References (if relevant)

Annex K – Applied prevention and control measures on avian influenza Ireland

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1. Scope

This document provides a brief overview of specific prevention and control measures applied in Ireland during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
07/11/2016	Reports of H5N8 in Hungary and other EU MS	Issue of a briefing note to industry stakeholders to raise awareness	Industry stakeholders; also available to general public on our website
09/11/2016	Reports of H5N8 in Hungary and other EU MS	Presentation on disease situation and biosecurity at industry conference	Industry stakeholders including farmers; also available on Bord Bia website
08/12/2016	H5N8 outbreaks in France and NL	Issue of an updated briefing note to industry stakeholders to raise awareness	Industry stakeholders; also available to general public on our website
12/12/2016	H5N8 outbreaks across EU	Meeting with poultry industry stakeholders – they were briefed on the situation, we discussed options for control, likely scenarios if a positive case occurred, and we asked for increased submission of samples for exclusion diagnostics.	Industry stakeholders, poultry vets.
23/12/2016	Report of H5N8 in a wigeon in Wales, UK	Compulsory confinement order	Industry
30/12/2016	Detection of first H5N8 case in a wild bird in Ireland	Issue of an updated briefing note to industry stakeholders to raise awareness; issue of press release	Industry stakeholders; also available to general public on our website
24/04/2017	8 weeks since last detection of H5N8 in a wild bird in Ireland, migratory period ending	Compulsory confinement order rescinded	Industry

3. Increasing awareness of the stakeholders and the general public

A series of briefing notes and guidance documents were issued to industry starting in November 2016; these can be seen at this link http://www.agriculture.gov.ie/avian_influenza/avianinfluenzaneews/.

These included advice to hunters, advice for those keeping ducks and geese, biosecurity advice, advice for backyard poultry keepers, information on how eggs from free range flocks can be marketed while housed, information for the general public, and regular issuing of bulletins targeted at the industry.

4. Housing order

The compulsory housing order was issued on 23/12/2016 as a result of the reporting of H5N8 in a wild bird in Wales, UK. It was rescinded on 24/04/2017 as eight weeks had passed since the last H5N8 wild bird case in Ireland and because migratory birds implicated in spreading H5N8 (wigeons, whooper swans) generally leave Ireland by mid-to-late April (link <http://www.agriculture.gov.ie/press/pressreleases/2017/april/title,107218,en.html>). The compulsory housing order applied to the whole country for the duration of the order. The situation was reviewed on January 23rd and the decision was taken to maintain the order (link <http://www.agriculture.gov.ie/media/migration/animalhealthwelfare/diseasecontrols/avianinfluenzabirdflu/news/Reviewofconfinementregulations250117.pdf>).

While the housing order was in place, a number of poultry flocks were selected for inspection to ensure compliance with the order and to assess biosecurity and flockowner awareness in relation to avian influenza control measures. Inspections involved a visit by an Official Veterinarian and completion of a specific checklist. Flocks for inspection were selected based on the following risk parameters:

- Species (ducks and geese prioritised)
- Location (focussing on high density poultry areas within Ireland)
- Size (large commercial operations prioritised).

Additional flocks were also selected for a phone survey during which they were asked a number of prescribed questions to assess, also, the level of compliance with the poultry housing order, farm biosecurity and flock owner awareness.

5. Strengthening biosecurity measures (other than housing order)

A series of advice leaflets and guidance notes on biosecurity were issued (available here <http://www.agriculture.gov.ie/media/migration/animalhealthwelfare/diseasecontrols/avianinfluenzabirdflu/news/4670BioSecuritylr.pdf> and here http://www.agriculture.gov.ie/avian_influenza/avianinfluenzaneews/) including targeted advice to duck and geese farmers, backyard flocks, free range flocks. The importance of biosecurity was emphasised to poultry industry representatives at meetings and by briefing notes.

A presentation on the disease situation and biosecurity was given to industry stakeholders (available here: <http://www.bordbia.ie/industry/events/SpeakerPresentations/2016/Pages/PoultryEggconference2016.aspx>

While the housing order was in place, a number of poultry flocks were selected for inspection to ensure compliance with the order and to assess biosecurity and flockowner awareness in relation to avian influenza control measures. Inspections involved a visit by an Official Veterinarian and completion of a specific checklist. Flocks for inspection were selected based on the following risk parameters:

- Species (ducks and geese prioritised)
- Location (focussing on high density poultry areas within Ireland)

- Size (large commercial operations prioritised).

Additional flocks were also selected for a phone survey during which they were asked a number of prescribed questions to assess, also, the level of compliance with the poultry housing order, farm biosecurity and flockowner awareness.

6. Preventive culling

Not applied – no cases occurred in poultry so the situation did not arise.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation)

Not applied - no cases occurred in poultry so the situation did not arise.

8. Derogations on restriction zone implementation after risk assessment

Not applied - no cases occurred in poultry so the situation did not arise.

9. Hunting

Hunting was allowed, and specific guidance for hunters was issued, including a request to report sick or dead birds (link here

<http://www.agriculture.gov.ie/media/migration/animalhealthwelfare/diseasecontrols/avianinfluenzabirdflu/informationonwildbirds/AIGuideForHunters050117.pdf>).

References (if relevant)

Annex L – Applied prevention and control measures on avian influenza Italy

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1. Scope

This document provides a brief overview of specific prevention and control measures applied in Italy during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
09/11/2016	First H5N8 HPAI findings in Hungary	Precautionary measures at national level, particularly in farms located in areas at risk or in proximity to wetlands. Strengthening of controls on biosecurity measures at farms, and of passive surveillance in wild bird population. Awareness of stakeholders for immediate signaling of any signs of disease (early detection). Functional separation between wild birds and poultry (high risk areas).	Poultry industry, backyard keepers, official veterinary services, private veterinaries.
30/12/2016	First wild bird tests positive to H5N5 in Northeastern Italy	Suspension of the derogation of using live decoy birds. Veterinary controls on correct application of biosecurity measures, and of mortality and food intake registers in addition to virological controls. Strengthening the biosecurity level. Intensification of passive surveillance on wild birds.	Poultry industry, backyard keepers, official veterinary services, private veterinaries.
24/01/2017	First two poultry outbreak in housed fattening turkey farms (Venice and Padua)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
26/01/2017	Triggered by the first case	Controls on turkey farms at national level. Definition of a Further Restriction Zone. Functional separation between Veneto and other regions. Measures to be applied in contact premises (or in farms suspected). Strengthening biosecurity measures at national level, in particular in at risk	Poultry industry, backyard keepers, official veterinary services, private veterinaries.

		areas.	
26/01/2017	3 rd poultry outbreak in housed laying hen farm (Rovigo)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
27/01/2017	Identification of contact holdings	Measures to be applied in contact holdings: birds present in the contact holding are killed and disposed of (art.15 Council Directive 2005/94/EC)	Regional veterinary services
06/02/2017	4 th poultry outbreak in housed fattening turkey farm (Parma)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
15/02/2017	Triggered by the epidemiological evolution of the epidemic in Italy	Definition of a Further Restriction Zone. Controls on turkey farms at national level. Functional separation between Lombardy, Veneto, Piedmont, and Emilia-Romagna regions. Strengthening biosecurity measures in particular in fattening turkey farms located within the Further Restriction Zone.	Poultry industry, backyard keepers, official veterinary services, private veterinaries.
16/02/2017	5 th poultry outbreak in housed fattening turkey farm (Mantua)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
21/02/2017	6 th poultry outbreak in housed fattening turkey farm (Verona)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
22/02/2017	Identification of contact holdings	Measures to be applied in contact holdings: birds present in the contact holding are killed and disposed of (art.17 Council Directive 2005/94/EC)	Regional veterinary services
23/02/2017	7 th poultry outbreak in housed fattening turkey farm (Mantua)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
24/02/2017	Identification of contact holdings	Measures to be applied in contact holdings: birds present in the contact holding are killed and disposed of (art.17 Council Directive 2005/94/EC)	Regional veterinary services
01/03/2017	8 th and 9 th poultry outbreaks in two small backyards (Venice)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
03/03/2017		Ban of fattening turkeys re-stocking in the Further Restriction Zone (derogations granted by Ministry of Health).	
17/03/2017		All measures applied from 15 february are lifted	Poultry industry, backyard keepers, official veterinary services, private veterinaries.
23/03/2017	10 th poultry outbreak in a backyard (Treviso)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
29/03/2017	11 th poultry outbreak in housed fattening turkey farm (Verona)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
29/03/2017	12 th poultry outbreak	3km PZ and 10km SZ in place, with all	Poultry and

	in a backyard (Pordenone)	associated visits and testing	backyard/captive bird keepers in the restriction zone only
29/03/2017	Identification of contact holdings	Measures to be applied in contact holdings: birds present in the contact holding are killed and disposed of (art.17 Council Directive 2005/94/EC)	Regional veterinary services
30/03/2017	Triggered by the epidemiological evolution of the epidemic in Italy	Individuation of areas exposed at high risk of introduction of H5 and H7 HPAI viruses. Biosecurity measures to reduce the risk of AI introduction: ban on free-range poultry rearing; ban on using superficial water reservoirs; stocking areas protected from wild birds; ban on exhibitions, fairs, and live bird markets; ban on using live decoy birds. Reinforcement of early-detection system.	National level
31/03/2017	13 th poultry outbreak in a backyard (Turin)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
11/04/2017	14 th poultry outbreak in housed laying hen farm (Bologna)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only
13/04/2017	15 th poultry outbreak in housed fattening turkey farm (Verona)	3km PZ and 10km SZ in place, with all associated visits and testing	Poultry and backyard/captive bird keepers in the restriction zone only

3. Increasing awareness of the stakeholders and the general public

Details on Avian Influenza outbreaks occurred in Italy and on the epidemiological situation at the European level are provided and updated through the website of Istituto Zooprofilattico Sperimentale delle Venezie, where the National Reference Laboratory for Avian Influenza and Newcastle Disease has dedicated sections: <http://www.izsvenezie.it/temi/malattie-patogeni/influenza-aviaria/situazione-epidemiologica-HPAI/>; <http://www.izsvenezie.it/temi/malattie-patogeni/influenza-aviaria/situazione-epidemiologica-hpai-europa/>.

Other websites at the local/national level from various stakeholder groups and association (e.g. associations of poultry farmers, National and Regional veterinary associations, etc) link directly to the IZSVE website for updates on AI epidemiological situation, allowing to reach a broader audience.

Official communications by Competent Authority (Ministry of Health) on a new outbreak is forwarded for information to poultry farmer unions, poultry production companies, and veterinary associations.

4. Housing order

Ministerial Provision (DGSAF) 29861, of 30 December 2016 (Article 1, point 3, letter a) indicates that a defined separation needs to be guaranteed between domestic poultry and wild birds. At a National-level, free-range poultry need to be housed in closed sheds; in case this measures is not possible, due to severe welfare issues, feeding areas and water supplies need to be not accessible by wild birds. No end date is provided for the provision.

Due to the evolution of the epidemiological situation of H5N8 HPAI in domestic poultry, the Ministerial Provision (DGSAF) 3833 of 15 February 2017 defined a Further Restriction Zone external to the Surveillance Areas of the confirmed HPAI cases. In the Further Restriction Zone, poultry needed to be moved and kept within closed (an covered) buildings; when impossible, birds needed to be moved in an area of the premise that allowed no contacts with poultry of neighbouring farms. Biosecurity

measures needed to be put in force to prevent or limit any contacts with wild birds. Measures in the Provision were indicated as valid for 30 days from the issue date.

Ministerial Provision (DGSAF) 8246 of 30 March 2017, banned the free-range rearing of poultry in areas considered exposed at higher risk of Avian Influenza introduction and spread. Other biosecurity measures were also included, as indicated in paragraph 5 of the present report (*'Strengthening biosecurity measures (other than housing order)'*).

5. Strengthening biosecurity measures (other than housing order)

With the Provision (DGSAF) n.29861 of 30 December 2016, the Ministry of Health highlighted the need of an enhancement of vigilance: official veterinary services were asked to control the correct application of biosecurity measures (control of movement, separation between wild birds and poultry, increased awareness of personnel).

Following the first two outbreaks in poultry industry in Veneto region, the Ministry of Health issued the provision n.1941 of 26 January 2017 instructing functional separation between Veneto (NUTS3: ITH31, ITH32, ITH33, ITH34, ITH35, ITH36, ITH37) and the other regions. On 15 February, Ministerial provision n.3833, extended functional separation to the regions characterized by high density of poultry production: Emilia-Romagna, Lombardy, Piedmont, and Veneto (NUTS3: ITH51, ITH52, ITH53, ITH54, ITH55, ITH56, ITH57, ITH58, ITH59, ITC4A, ITC4B, ITC4C, ITC4D, ITC41, ITC42, ITC43, ITC44, ITC45, ITC46, ITC47, ITC48, ITC49, ITC11, ITC12, ITC13, ITC14, ITC15, ITC16, ITC17, ITC18, ITH31, ITH32, ITH33, ITH34, ITH35, ITH36, ITH37).

In art.6 of Ministerial Provision (DGSAF) n.3833 of 15 February 2017, it was indicated that all operations in the farms (vaccinations/medications, loading) were allowed only using personnel already working in the farm or authorized by Local Health Authority.

Ministerial provision n.8246 of 30 March 2017 contained measures for reducing the risk of AI introduction and spread, and for early detecting AI introduction through wild birds. The risk factors accounted in the definition of risk-areas included: locations of farm along migratory paths, distance to the nearest wetland, density of wild waterfowl, high density of poultry farms. In the areas considered at high risk, the Provision banned: (i) free-range poultry rearing; (ii) water supplying from surface water reservoir; (iii) storing fodder and bedding in areas not protected from wild birds and other animals; (iv) gathering of domestic birds for fairs, exhibitions, and live birds market; (v) using live decoy birds for hunting.

At the national level, the **Ministerial Provision of 26 August 2008** "Veterinary authority measures on infectious and communicable diseases of poultry", reports the definition of risk areas, of control measures to be applied in the risk areas, and the biosecurity requirements (both structural and managerial) for poultry holdings

6. Preventive culling

As provided for in art.15 and art.17 in Council Directive 2005/94/EC, preventive culling was applied in total 10 industrial poultry farms, with an approximate amount of 405,000 culled birds. Criteria used to decide which holdings should be depopulated were: i) proximity to infected farms (within the 3-km radius); ii) potential direct contacts (sharing of personnel, farms belonging to the same owner, farms belonging to familiars of the owner).

Outbreak	Pre-emptive culling – productive type	Culled birds	End of culling
Rovigo	Laying hens	36,737	03/02/2017
Verona	Fattening Turkeys	8,557	22/02/2017
Verona	Fattening Turkeys	14,486	01/04/2017

Verona	Fattening Turkeys	22,978	03/04/2017
Verona	Fattening Turkeys	9,503	13/04/2017
Verona	Fattening Turkeys	24,294	13/04/2017
Verona	Fattening Turkeys	15,736	14/04/2017
Mantua	Fattening Turkeys	7,951	03/03/2017
Mantua	Broiler	72,746	03/03/2017
Mantua	Fattening Turkeys	25,136	03/03/2017
Mantua	Broiler	77,610	03/03/2017
Mantua	Broiler	59,412	03/03/2017
Mantua	Fattening Turkeys	15,000	08/06/2017
Mantua	Fattening Turkeys	9,500	08/06/2017

7. Regional stand still (beyond the restriction zones specified in the EU Regulation)

No regional stand still measures were adopted in Italy.

8. Derogations on restriction zone implementation after risk assessment

In the restriction zones of all the cases, bird movement and housing derogations were applied as follows:

- i) in Protection Zones (PZ), derogations were discussed in the context of the Central Crisis Unit (UCC);
- ii) in Surveillance Zones (SZ): derogations were discussed in the context of the UCC if the farm was located within a Densely Populated Poultry Area (DPPA); in the case the farm was located outside of the DPPA, derogations were granted by Local Veterinary Service (the approval of more than one Regional Authority was needed, in case the derogation would affect more than one region). Derogations on poultry housing restrictions were granted in case of severe welfare issues: e.g. ready-to-lay pullets, and breeders belonging to small companies and needing to be moved in premises within the SZ (and which could have been culled due to the impossibility of being moved to the new farms).

Ministerial provision n.8246 of 30 March 2017 banned domestic bird fairs, exhibitions, or live birds market in high risk areas. Ministerial provision n.11113 of 3 May 2017, allowed Regions and Autonomous Provinces to authorize fairs, exhibitions or markets following a risk-based evaluation.

9. Hunting

Release of game-birds for repopulation purpose was ban since the first two outbreaks in poultry. The ban involved all the territories included in the protection and surveillance zones. Furthermore, ministerial provisions n.29861 of 30 December 2016, and n.8246 of 30 March 2017 suspended the derogation of using live decoy birds (Anseriformes and Charadriiformes orders) for hunting activities at a national level.

Hunting seasons in Italy goes from the third week of September to the end of January.

References (if relevant)

Besides the National Provisions of the Ministry of Health discussed in the main text of the report, the

Provision of the Ministry of Health of 26 August 2005: '*Control measures to reduce the risk of transmission for infectious poultry diseases*' laid the bases for the application of biosecurity measures.

Annex M – Applied prevention and control measures on avian influenza The Netherlands

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1. Scope

This document provides a brief overview of specific prevention and control measures applied in The Netherlands during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Before 9th of November Increasing awareness, strengthening biosecurity. As 9th of November repeal housing order commercial poultry confinement and housing order hobby birds and other non commercial captive birds confinement. As of 14th of November next measures were implemented: 1: ban for visit commercial poultry holdings and other holdings or locations where birds are held. 2: mandatory visitors registration, 3: ban races and exhibitions with birds, 4: ban hunting ducks or to hunt in general in wet areas with waterfowl 5: mandatory clinical examination of birds for transport to or from ducks and turkeyholdings, 6: mandatory intensive clinical examination ante mortem of ducks and turkeys at slaughterhouses, 7: measures regarding cover and application of litter on duck holdings. 8: using a hygiene protocol for visiting of commercial poultry holdings. All the measures were lifted as 19th of April 2017 with exception of measure nr 4 wich was lifted as 9th of December 2016 and with exception of measure nr 8, this measure is still active.

No further measures were applied after 1 December 2016.

Table1: Overview of main communication actionsDate	Event that triggered action	Type of action taken	Target audience (if applicable)
09/11/2016	First HPAI positive wild bird finding;	Increasing awareness, repeal housing order (commercial poultry confinement), strengthening biosecurity, intensified wild bird monitoring	e.g. poultry associations, general public, etc.
14/11/2016	More HPAI positive wild bird finding	Hunting prohibited, no access to stables with birds unless no other option e.g. veterinarians or personell only access with hygiene protocol approved by Competent Authority and no shows or other gatherings with birds	e.g. poultry associations, general public, etc.
25/11/2016	First outbreak HPAI positive commercial	Culling and preventive culling commercial poultry holdings,	e.g. poultry associations, general

	poultry holding	strengthening biosecurity like no access to premises with commercial poultry, transport of live poultry only with hygiene protocol, direct and with declaration of private veterinarian, implement protection and surveillance zones around HPAI positive commercial poultry holdings, implement preventive culling 1km zone.	public, etc.
01/12/2016	More HPAI positive commercial poultry and more HPAI positive wild birds	Extra hygiene measures for transport of turkeys and ducks and for premises with turkeys and ducks (covering bedding material).	e.g. poultry associations, general public, etc.

3. Increasing awareness of the stakeholders and the general public

Development of biosecurity measures during crisis in contact with poultry sector. Communication both by Ministry and poultry sector like as follows: Directly published on government website (www.rijksoverheid.nl): Legal information/Information to Parliament / Information for press / Questions & Answers / Phone center for questions from both poultry owners and general public, in direct contact with poultry advisors / Communication department in close contact with press / Meeting for all stakeholders and communication by media with general public.

4. Housing order

According to EU Legislation and national legislation, the application of the housing order was for the whole country.

(Which was the strategy for lifting the housing order? How was it done in practice? (description of how the housing order was implemented and how it went back to the normal situation. what was applied and how?))

The housing order was implemented in mandatory national legislation as of 9th of November 2016 after an executed risk assessment by the Commission of animal disease experts which consists of this matter of Avian Influenza experts. This Commission advised the Chief Veterinary Officer and The Minister to introduce measures against HPAI. The trigger of implementing the housing order were the international notifications of the different EU Member States of HPAI outbreaks during the last weeks before 9th of November and the first HPAI notification in wild birds in the Netherlands on the same day. The lifting of the housing order was as of 19th of April 2017 on the recommendation after an execution of a risk assessment by the Commission of animal disease experts. The Commission assessed the risk of spreading of the HPAI infection by wild birds as greatly reduced and the fact that the amount of new notified HPAI outbreaks by wild birds was also greatly reduced in The Netherlands and in the rest of Europe. And finally the Commission assessed that the risk of spreading from HPAI infected holdings in Europe and from The Netherlands itself was greatly reduced as well. The last HPAI positive wild bird was in NL as of 15th of March 2017 and the last HPAI positive captive bird was in NL as of 23rd of March 2017. The last HPAI positive poultry holding in NL was as of 25th of December 2016.

5. Strengthening biosecurity measures (other than housing order)

(Control by Competent Authority (enforcement divisions) by visits e.g. confinement commercial poultry holdings and surveillance in protection and surveillance zones by road checks. Can you explain the availability of cleaning and disinfection facilities in your country? (linked to slaughterhouses, enough or not, ...))

We have concluded multiple years service level agreements with suppliers who can deliver cleaning and disinfection equipment 24H/7days within 4 hours after calling by Dutch government for culling on every location in the whole country.

6. Preventive culling

It was applied for all commercial poultry holdings in 1 kilometer zones around the 9 HPAI positive culled poultry holdings and for the contact commercial poultry holdings.

(Please provide the set of criteria that has been applied to decide to apply it)

Since the great HPAI outbreak of HPAI H7N7 in The Netherlands in 2003, preventive/pre-emptive culling of commercial poultry holdings in the 1 kilometer zone around the index HPAI holding and the contact holdings is executed to prevent further spreading of the HPAI virus to other holdings. This is national legislation and mandatory.

After the outbreak of HPAI in 2003 and lessons learned, NL apply in his national legislation a 1 km preventive culling zone to avoid further spreading of virus and out of precautionary principle.

(Please specify how the "contact" is defined (human activities, feed, poultry, animals transport, equipment...))

Contact means all the contact of human activities, feed, poultry, animals transport, manure, products, eggs, equipment, egg collection centres etc

The enforcement groups executed the investigation by interviewing the farmer and all other involved people.

It was applied within the 1 kilometer area and the all the holdings with proved contacts with the outbreak index holding.

It was applied to all contact farms and all the commercial poultry holdings situated within the 1 kilometer area around the outbreak index holding.

(Please specify if positive samples were found in the duck holdings that underwent preventive culling)

No positive samples were found in the duck holdings that underwent preventive culling.

(Can you explain difficulties encountered in logistics regarding culling: e.g. need to involve teams/companies from other countries ...)

We have had no difficulties encountered in logistics regarding culling in The Netherlands.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation)

No, only the 1km/ 3km and 10 km zones (protection and surveillance zones).

Zoning

(What is your experience to follow the implementation of zones in other MSs?)

There are various implementations of zones in other MSs.

8. Derogations on restriction zone implementation after risk assessment

No

9. Hunting

Hunting was as 14 November 2016 prohibited.

(Did the ban have an expiration date? Is it still active? At which extent was it applied?)

The ban on hunting was lifted as 9th of December 2016 because end of the hunting season.

Early detection

(What are the thresholds used in your country for increased mortality, reduction of food/water intake, reduction egg production?)

Thresholds for **increased mortality**: farmer has to notify to government when there is two consecutive days 0.5% or more mortality per flock of laying hens, breeder or broilers (elder than 10 days age) per day OR two consecutive days 1% or more mortality per flock of turkeys per day OR per week 3% or more mortality of flock of other AI sensitive birds. Threshold for **reduction of feed or waterintake**: farmer has to notify to his veterinarian if there is two consecutive days a reduction of water and/or feed intake of 5 % or more per day. Threshold for **eggdrop production**: faner has to notofy to his veterinarian if there is two consecutive days an eggdrop production of 5% or more per day.

References (if relevant)

Annex N – Applied prevention and control measures on avian influenza in Romania

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1. Scope

This document provides a brief overview of specific prevention and control measures applied in Romania during the October 2016- April 2017 period, in relation to avian influenza. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

2. Timing of the applied prevention and control measures

Table1: Overview of main communication actions

Date (in chronological order)	Event that triggered action	Type of action taken	Target audience (if applicable)
Prior to November 2016, when the first case of HPAI was confirmed in Romania.	The appearance of HPAI cases (wild birds and outbreaks) in Europe and not only.	Following the notification from EU bodies of the evolution of HPAI cases and outbreaks, the NSVFSA notified the counties (administrative regions of Romania) of this situation and requested an increase in the degree of awareness for all sanitary veterinary personnel. In detail, a more drastic monitoring of trade was enforced, a revision of the biosecurity programs in place for FBO's of avian profile was decided and also a full review of the available resources for veterinary official laboratories, in order to meet any challenges posed by an eventual outbreak of HPAI. The same analysis was performed for all necessary equipment (protection, disinfection, neutralization) for an eventual enforcement of specific measures. Moreover, official veterinarians trained free practice veterinarians in terms of specific actions to be taken in the case of wild bird cases or outbreaks. Enforcing housing orders for all backyards in Romania. Notifying other competent authorities from the public health field of the evolution of HPAI in Europe in wild, domestic and captive birds and establishing the future working frame for the fight against HPAI.	<p>Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers. Livestock auctioneers.</p> <p>Other public institutions involved in public health;</p> <p>Non-Governmental Organizations and professional organizations of avian profile (e.g. hunters, breeders, etc.).</p> <p>Poultry industry, veterinary profession, pigeon fanciers</p> <p>Zoological</p>

		<p>Notifying NGOs and professional organisations of the situation and providing general/specific sanitary veterinary and biosecurity instructions for preventing and fighting the disease.</p> <p>Notifying Food Business Operators of the situation and assisting them with instructions sent via Service Notes of compulsory and additional bio security measures for prevention and fight against Highly Pathogenic Avian Influenza;</p> <p>In the case of hunting grounds, it was decided to enhance the active surveillance for wild bird populations.</p> <p>In the case of free range and ecologic avian farms, it was decided that all birds are to be sheltered and prevented from having access to open spaces, in order to prevent all forms of contact with wild birds.</p> <p>All national movements of birds and hatchery eggs were only performed with an inter-county approval and with a minimum of 48 hours prior notification.</p> <p>Notifying the public of the current situation and providing general and specific prophylactic measures for safeguard.</p> <p>Collecting data on the migratory and domestic wild bird populations (areas, census, migration routes, etc.).</p> <p>Alerting the counties neighbouring MS where HPAI was evolving of the situation and intensifying surveillance for those areas.</p>	<p>Gardens.</p> <p>General Public;</p> <p>Targeted public (control and surveillance areas) and/or NGOs and professional organizations of avian profile (e.g. hunters, breeders, etc.).</p>
28/11/2016	First wild bird case in Romania – Constanta county – Cygnus cygnus	<p>Enforcing the 10 km SZ; notifying all competent central and local authorities of the evolution of the wild bird case; notifying local FBOs of the evolution of the disease; issuing housing orders for the backyards in the 10 km SZ; prohibiting bird movements in the 10 km SZ, based on a risk assessment; SZ surveillance and monitoring of avian profile FBOs; SZ birds census (backyards and FBOs); monitoring all mortalities in the FBOs from the SZ; notifying all official and free practice veterinarians to instruct the population to immediately announce any suspicious clinical signs of their poultry and all suspicious mortalities; notifying the public of the current situation and providing general and specific prophylactic measures for safeguard; notifying all competent authorities in the public health domain.</p>	<p>Poultry and captive bird keepers in the SZ; FBOs; local population; competent authorities in the public health domain; all relevant information was available on the NSVFSA website and also through media releases.</p>
30/12/2016	First non-commercial outbreak, Tulcea county, Pardina locality	<p>Enforcing the 3 km and 10 km PZ and SZ; notifying all competent central and local authorities of the evolution of the outbreak; notifying local FBO of the evolution of the disease; issuing housing orders for the backyards and FBOs in the 3 km and 10 km PZ and SZ; prohibiting bird movements in the 3 km and 10 km PZ and SZ, based on a risk assessment; PZ and SZ surveillance and monitoring of avian profile FBOs; PZ and SZ birds census (backyards and FBOs); monitoring all mortalities in the FBOs from the PZ and SZ;</p>	

		<p>notifying all official and free practice veterinarians to instruct the population to immediately announce any suspicious clinical signs of their poultry and all suspicious mortalities; Notifying the public of the current situation and providing general and specific prophylactic measures for safeguard; notifying all competent authorities in the public health domain.</p> <p>After the suspicion diagnosis, all the remaining domestic birds were culled by a team of representatives from the Tulcea CSVFSD and the Local Centre for Fight Against Diseases (Inter-Agency local public health organism). All provisions of EU Directive 94/2005 were complied with (disinfections, sampling, neutralisation, restrictions, etc.)</p>	
All backyard outbreaks (2016-2017)	The rest of the outbreaks in Romania (non-commercial)	<p>Following an epidemiological risk analysis, an evaluation of the patterns of backyard outbreaks, all outbreaks were isolated and did not progress to other localities. Thanks to an efficient rapid and early notification of all relevant suspicions (HPAI) and of swiftly enforced control measures (for instance, preventive culling), as well as early prevention measures by all actors involved (detailed in the "<i>Prior to November 2016, when the first case of HPAI was confirmed in Romania</i>"), all outbreaks were approached in a similar manner and no special measures were enforced, as was the case for other Member States (additional restriction zones, extensive preventive culling, etc.).</p>	
24/05/2017	A significant decrease in the number of wild bird cases and outbreaks in Europe, a nearly 2 months absence of any new cases and outbreaks in Romania	<p>Lifting the restrictions enforced at the national level was a decision made by corroborating a series of factors: a significant decrease in the number of wild bird cases and outbreaks in Europe and a nearly 2 months absence of any new cases and outbreaks in Romania, the increase of the average temperature in Romania with the subsequent migration of wild birds, all backyard outbreaks were isolated and did not progress to other localities or commercial farms. The official lifting of national restrictions was performed on the 24th of May 2017, and since, no other suspicions were issued.</p>	

All wild bird cases and outbreaks generated a linear reaction from the National Sanitary Veterinary and Food Safety Authority in Romania, namely respecting the following actions (supported by the attached Service Notes of the NSVFSA):

1. Event notification by animal owners and/or food business operators;
2. On-site official inspection by the official veterinarians;
3. Implementation of primary sanitary veterinary measures;
4. Activation of the Local Centres for Disease Fight (teams of representatives from all official institutions that hold responsibilities in public health, coordinated by the Prefect of the

- respective county), entities that would draw up, approve and enforce all public health measures in relation to HPAI;
5. Collecting samples from diseased/dead birds and sending them for specific laboratory assays (disease suspicion – the County Sanitary Veterinary and Food Safety Laboratories);
 6. Following the positive disease suspicion, most of the preventive culling actions were enforced (detailed in Chapter 6);
 7. Notification of all stakeholders (e.g. official institutions, FBOs, animal owners, etc.) of the presence of HPAI suspicion/confirmation in Romania;
 8. Elaborating and creating the framework for the official enforcement of the necessary sanitary veterinary and food safety measures for the prevention and fight against HPAI; in some cases, where it was justified by an epidemiologic assessment and a risk evaluation, the local Competent Authority took action in order to prevent the dissemination of the disease, prior to having the official confirmation of the disease by the National Reference Laboratory for Avian Influenza;
 9. Sending the samples to the National Reference Laboratory for Avian Influenza (the Institute for Diagnosis and Animal Health);
 10. Following the official confirmation of the disease, the implementation of the entire set of sanitary veterinary and food safety measures for the prevention and fight against HPAI was enforced;
 11. Enforcing the provisions of the European and national (Operational Manual for Avian Influenza and Newcastle Disease – attached, last updated in 2014) legislation, until the moment when the Central Competent Authority was eligible to lift the restrictions and confirm the absence of the virus in the respective affected areas;

3. Increasing awareness of the stakeholders and the general public

The National Sanitary Veterinary and Food Safety Authority in Romania adopted three lines of strategy when it came to communication plans and activities in relation to Highly Pathogenic Avian Influenza:

- a) Communicating with stakeholders and relevant authorities in the field of public health and veterinary public health:
 - Stakeholders: the National Sanitary Veterinary and Food Safety Authority, as a critically important actor for public health, has implemented a series of collaboration protocols with numerous institutions and legal representatives that also provide for securing public health in Romania (e.g. the Ministry of Health, the Ministry of Internal Affairs, etc.); these protocols serve to provide multidisciplinary contingency plans for high risk situations, when one competent authority cannot provide sufficient human resources, logistics or scientific input to efficiently address such a situation; thus, the National Sanitary Veterinary and Food Safety Authority issued a series of notifications to these institutions in respect to the evolution of HPAI in Romania, as well as on-point requests for collaboration (e.g. support in monitoring the effectiveness of the ban on poultry markets/fairs, compliance with the restrictions of birds movement, etc.); these notification provisions were also applied in the case of NGO's, associations, professional organisations and other legally established stakeholders;
 - General public: the National Sanitary Veterinary and Food Safety Authority, obliged under the national legislation for release of information of public importance and free

data access, namely Law no. 544/2001, has constantly informed the general public of the evolution of Highly Pathogenic Avian Influenza in Romania, through press releases and by using its own website (<http://www.ansvsa.ro/>), as well as media partners (e.g. newspapers, TV channels, social media, etc.);

- **Local public:** where localities and/or commercial establishments were included in the protection/surveillance areas following the confirmation of a wild birds case or an outbreak, the National Sanitary Veterinary and Food Safety Authority, through its territorial representatives, namely the County Sanitary Veterinary and Food Safety Directorates, and with the help of other public institutions, issued and disseminated targeted advice for the economic operators and the people living in these areas, in respect to:
 1. Sanitary veterinary measures concerning restrictions for the animals in the backyards;
 2. Sanitary veterinary measures concerning the ban on animal movements;
 3. Sanitary veterinary measures concerning the movement of objects/materials/feed that could act as vectors for the disease;
 4. Sanitary veterinary measures concerning specific rules for consuming poultry and the risks that HPAI poses for human health;
 5. Sanitary veterinary measures concerning the mandatory notification of the empowered free practice veterinarians or the official veterinarian when noticing any change in the health status and/or other health criteria (a drop in the intake of feed, water and any other abnormal behaviour) in backyard birds. However, the latter have not been reported in any of the notifications made by animal owners, rendering them of little statistical significance in the case of backyards;
 6. Sanitary veterinary measures concerning basic food safety and hygiene rules.

The abovementioned were disseminated via leaflets, broadcasts on public radios and TV stations and by door-to-door verbal communications done by official teams.

Fig. 1 – Example of a public warning of the evolution of HPAI in Romania



4. Housing orders

Concerning the housing orders, it is imperative to acknowledge the fact that the backyards husbandry system has several particularities that require a special set of measures in order to prevent and combat infectious diseases. In detail, the legal, social and economic aspects are primordial:

- **The legal aspect:** backyards do not possess a legal personality and the vast majority of the national and international regulations are inapplicable to them; thus, it is difficult to enforce strict sanitary veterinary measures and even more problematic to supervise the enforcement of these actions, due to reasons as is the necessary high input of human resources; however, specific parts of the national legislation have been specially adapted to address the particular issue of backyards (e.g. sanctions and fines, animal movement, transport, welfare, etc.);
- **The social and economic aspects:** the foremost important aspect is that animal husbandry is a vital part of the subsistence for these backyards, the animal owners

being totally dependent on the products of animal origin obtained from these animals; thus, the backyard animals cannot be regarded as hobby, sport or companionship animals from the view of animal owners.

Considering the abovementioned, issuing house confinement orders was an extremely difficult decision to implement. Since the moment of the first HPAI outbreak, housing orders were issued for both the 3 km protection zone, as well as for the 10 km surveillance zone. No bird movements from backyards were permitted during the evolution of the cases and/or outbreaks, as well as enforcing the obligation of housing the animals in enclosed and sheltered premises within the backyards in order to prevent direct and indirect contact with wild birds. The enforcement of these measures was performed by official veterinary personnel, assisted by other public establishments involved in public health. Regular visits and inspections were enforced in order to check for compliance with the sanitary veterinary measures. Based on the evolution of the disease in Romania, on the courses for migration of wild birds, of the evolution of the seasons (from cold to warm), on the compliance of the FBOs and non-professional backyards to the sanitary veterinary and food safety enforced measures, on the cross-border evolution of outbreaks in Europe and not only, on the efficiency of the measures quantified in negative laboratory assays and no mortality in birds (wild, domestic and captive birds), for each individual outbreak we conducted a risk assessment procedure to determine if lifting the restrictions at the minimum waiting period (21 days for the control zone and 30 days for the surveillance zone) was the best option on the table. No prolongations of the enforced measures were applied for any outbreak.

5. Strengthening biosecurity measures (other than housing order)

As per the two Service Notes issued by the National Sanitary Veterinary and Food Safety Authority in Romania, namely Service Note no. 6530/2017 and Service Note no. 6560/2017 (attached to the present document, in Romanian), the following recommendations were provided both for food business operators, as well as for backyards:

For commercial establishments:

1. Implementing a three levels risk biosecurity system:
 - a) **Administrative zone:** offices and administrative spaces
 - Restricting access to these spaces and installing a sign that clearly informs of these restrictions;
 - Ensuring that allowed personnel has clean clothing and footwear (no organic materials that could contaminate the area).
 - b) **Professional zone:** the area that separates the production zone from the administrative zone
 - Preventing the access of mammals (rodents control and other companionship animals);
 - Providing cover for storage spaces;
 - Clean clothing and footwear when passing through the sanitary filter;
 - Creating an environment less propitious for wild birds (cleaning adjacent spaces, cutting the grass, trimming the trees, collecting fallen leaves and installing devices destined to scare off wild birds);
 - Draining existing water surfaces, as well as preventing their accumulation following rain;
 - Eliminating all spaces destined for non-commercial birds (e.g. companionship birds or those used for various hobbies);
 - Training all personnel in complying with the specifics of the disease and redefining their roles and responsibilities within the commercial establishments;
 - Contracted personnel and visitors would only be allowed inside this area and in the production zone if 72 hours have passed since their last contact with any domestic or captive birds, with products of avian origin or avian by-products (including manure);

- Exaggerating the disinfection of all transport means and their annexes, as well as all types of equipment and by-products not destined for human consumption;

- Where it is possible, the transport of birds, hatchery eggs and manure should avoid passing through this zone; if it is not possible, cleaning procedures must be in place.

c) **Production zone:** halls for animal husbandry, physically separated from the two aforementioned zones:

- Limiting the production to a single category, without mixing several categories (e.g. broilers with laying hens);

- Preventing the access of mammals (rodents control and other companionship animals);

- Restricting the access of visitors and of any other personnel that do not work in these premises;

- Using strictly single-use footwear and clothing, hand washing and an adequate hair grip under a bonnet, both for personnel as well as for visitors;

- Clothing and footwear would be specific for each individual hall and at the entrance of every hall there would be filter destined for change of clothes and footwear;

- Using strictly potable water in the halls and restricting access to surface waters;

- Farm production management based on the all full / all empty principle;

- Cleaning and disinfecting mobile equipment following each use (entry-exit);

- Transport means carrying feed and different materials are banned from entering this area, all necessary actions being done through reloading;

- Carcasses disposal will be done at a significant distance from the production halls and close to a public road (accessible from outside the commercial establishment); freezing is recommended, because it facilitates long term storage and a low frequency transport rate that involves a significantly lower risk;

- When discussing turkey farms, it is necessary to maintain a clean and dry bedding; this aspect is key to the biosecurity of turkey farms; the straws that are introduced as bedding cannot be subjected to the process of thermal treating, posing a risk for introducing contaminated materials in the halls and there is also the chance of attracting wild birds and rodents; special attention is needed in turkey farms when it comes to direct contact with wild birds and preventing the contamination of the bedding by the latter;

- In the case of web-footed birds (e.g. ducks, geese, etc.), in addition to the specific biosecurity measures, all contact of the birds with any type of water surface will be prohibited.

For backyards:

- Preventing any direct or indirect contact between wild birds and domestic or captive birds;
- Prohibiting the access to any type of water surfaces for domestic or captive birds;
- Separating, within the same backyard, laying hens/broilers from web-footed birds;
- Prohibiting the keeping birds in backyards in open spaces;
- Prohibiting using water surfaces as water reservoirs for domestic and captive birds;
- Limiting human circulation inside the backyard only to the owner and family members;
- Preventing contact with other domestic animals;
- Using different clothing and footwear when entering the premises where the birds are kept;
- Prohibiting the use of Anseriformes and Charadriiformes as decoy birds;
- Prohibiting the organisation and participation of animal owners to public manifestations as exhibits, markets, exhibitions of domestic and captive birds.

At least one official inspection and census were performed in every commercial establishment and every backyard in the surveillance and protection areas, while conducting a bird census and verifying biosecurity measures all together. Also, for the time period of 23rd of November – 31st of December, the sanitary veterinary officials monitored the mortality for every avian farm in Romania, on a daily basis. For the time period of 1st of January – until the closing of the last outbreak, the sanitary veterinary

officials monitored the mortality for every avian farm from the affected counties on a daily basis.

6. Preventive culling

Preventive culling for all outbreaks in Romania was enforced strictly after assessing each individual situation, by considering the following:

- Proximity to commercial establishments;
- Proximity to other backyards;
- Census of receptive birds in the respective locality;
- Relative biosecurity measures already in place or applicable to those backyards;
- History of diseases in the locality;
- Vaccination rate for other avian pathologies (e.g. Newcastle disease);
- Geographic and other elements that could pose a substantial risk to disease spread;
- The presence of wild bird migration courses in the proximity of the localities;
- The abundance of water surfaces and of vast populations of domestic/migrating birds on these water surfaces;
- Proximity to hunting grounds/wildlife areas rich in wild birds or game;
- Social status of the respective backyards (economic situation of the area, financial resources, the willingness of people to comply), whilst considering the possibility of implementing effective sanitary veterinary measures in these backyards, without facing additional risks.

For most of the cases (most backyards where outbreaks were confirmed were isolated and not in the proximity of neighbouring backyards/commercial establishments/wildlife areas) and, following a full epidemiologic investigation and a risk assessment, it was decided that there was no need for preventive culling of birds housed in backyards located in the vicinity of the outbreak.

However, where the risk assessment and epidemiological investigation provided clues for a potential risk of diseases spread (e.g. poor biosecurity measures, distance of meters or tens of meters between the backyards, etc.), preventing culling was enforced only to those backyards that had direct contact with the backyard where the outbreak was confirmed and, in exceptional situations, where the sanitary veterinary experts had clear and unequivocal evidence that anthropogenic or vector factors posed a real risk for the spread of the disease.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation)

Regional stand still was not applied, mainly by considering the fact that the outbreaks were isolated both in terms of region, number of affected animals as well as the spread of the disease.

8. Derogations on restriction zone implementation after risk assessment

Derogations were decided to be given only given to Food Business Operators that could prove compliance with the following conditions:

- Good results in past official controls and inspections in terms of compliance with biosecurity measures, traceability, etc.;
- No history of bad results in specific laboratory assays (e.g. no HPAI/LPAI case history, negative results in the active surveillance, etc.);
- The existence of efficient auto-control measures to provide for a safe passage from farm to fork;
- Not being in proximity to high risk areas for the evolution of HPAI.

Derogations for FBOs in restriction zones were only granted in the case of the outbreak of HPAI in Bacau county, where the following were considered:

- The 3 km protection zone enforced by the competent sanitary veterinary services included commercial poultry farms belonging to one of the biggest avian FBOs in Romania: 2 broiler farms and a heavy breed reproduction facility.

For the protection (3 km) zone, the National Sanitary Veterinary and Food Safety Authority, through its county representative – the Bacau County Sanitary Veterinary and Food Safety Directorate, implemented derogations for the Food Business Operator in terms of:

- Transport of live birds (broilers) for slaughtering in a designated slaughterhouse – 39 transports;
- Re-population agreement – 1 derogation;

For the surveillance (10 km) zone, the National Sanitary Veterinary and Food Safety Authority, through its county representative – the Bacau County Sanitary Veterinary and Food Safety Directorate, implemented derogations for the Food Business Operator in terms of:

- Transport of eggs destined for human consumption;
- Transport of incubation eggs: 2 derogations;
- Transport of day-old chicks, from the hatchery to the own farms of the FBO or third parties – 7 transports;
- Transport of manure to authorised facilities – 10 transports;
- Re-population agreement – 1 derogation.

In the case of the Bacau outbreak, derogations were given for the slaughter of a total number of 718.482 broilers within the protection period of 21 days, while complying with the specifics of the legislation for serologic and virus sample testing. The tests were performed in order to prove that all transports under the derogations are free of the virus and all were negative for the presence of Avian Influenza viruses.

9. Hunting

The National Sanitary Veterinary and Food Safety Authority, through its county representatives - the County Sanitary Veterinary and Food Safety Directorates, updated the list of hunting grounds for each area vulnerable or already included in control and/or surveillance areas due to wild bird cases or outbreaks of Highly Pathogenic Avian Influenza. Consequently, a census was performed for wild birds and game that inhabited these hunting grounds, in collaboration with competent authorities that participate in the safeguard and surveillance of these areas. Corroborating the results of this census with the low mortality registered in Romania's active surveillance for Avian Influenza and with the fact that the results from official controls show a solid level of confidence in the applied biosecurity measures in specific establishments, the National Sanitary Veterinary and Food Safety Authority concluded that prohibiting hunting was an unnecessary measure that could be replaced by other, more flexible actions, as:

- Official notifications, via the County Sanitary Veterinary and Food Safety Directorates, sent to all registered/authorised commercial establishments and hunting grounds in Romania, pertaining to the evolution of Highly Pathogenic Avian Influenza in a European context;
- Providing sanitary veterinary specific assistance for these establishments in performing a risk assessment;
- Notifying all actors involved in the "from farm to fork" course for game (products of animal origin) of the course of action enforced by the Central Competent Authority.

The only enforced restriction in relation to hunting was to prohibit the use of Anseriformes and Charadriiformes as decoy birds.

References (if relevant)

- Aside from the European and International relevant legislation, we are attaching the two Service Notes through which the NSVFSA coordinated the local representatives in the management of HPAI in Romania: Service Note of the National Sanitary Veterinary and Food Safety Authority no. 6530/2017 and Service Note of the National Sanitary Veterinary and Food Safety Authority no. 6560/2017.



Appendix 1

AUTORITATEA NAȚIONALĂ SANITARĂ VETERINARĂ ȘI PENTRU SIGURANȚA ALIMENTELOR
DIRECȚIA GENERALĂ SANITARĂ VETERINARĂ ȘI PENTRU SIGURANȚA ALIMENTELOR
DIRECȚIA SĂNĂTATEA ANIMALELOR
SERVICIUL CONTROLUL BOLILOR

SE APROBĂ,

PREȘEDINTE-SECRETAR DE STAT
Dr. Radu ROATIȘ CHEȚAN

Propun a se aproba,

VICEPREȘEDINTE –SUBSECRETAR DE STAT
Dr. Laszlo Nagy CSUTAK

NOTĂ DE SERVICIU

DIRECȚIILE SANITARE VETERINARE ȘI PENTRU SIGURANȚA ALIMENTELOR

În atenția Doamnelor/Domnilor Directori Executivi
INSTITUTUL DE DIAGNOSTIC ȘI SĂNĂTATE ANIMALĂ
În atenția Doamnei Director Dr. Florica BĂRBUCEANU

Subiect: Aplicarea măsurilor sanitare veterinare ca urmare a identificării unui caz pozitiv de influență aviară înalt patogenă H5N8 la păsări sălbatice.

Evoluția influenței aviare de înaltă patogenitate H5N8 la sfârșitul anului 2016, a cunoscut o explozie a cazurilor diagnosticate pozitiv atât la nivelul păsărilor sălbatice cât și în populația de păsări domestice din întreaga lume. În România, până în prezent influența aviară de înaltă patogenitate a fost diagnosticată la păsări sălbatice, în județele Constanța, Teleorman și Tulcea.

Având în vedere situația epidemiologică națională și internațională privind evoluția influenței aviare de înaltă patogenitate H5N8, pentru o aplicare uniformă a măsurilor sanitare veterinare, luând ca reper aspectele prevăzute de legislația sanitară veterinară în vigoare, legate de supravegherea și detectarea timpurie a gripei aviare, precum și creșterea gradului de conștientizare și de pregătire a autorităților competente și comunităților agricole, pentru riscurile acestei boli și pentru a preîntâmpina o eventuală apariție a unui focar de influență aviară la păsările domestice și captive, vă rugăm să aveți în vedere următoarele aspecte, în urma identificării unui caz pozitiv de influență aviară înalt patogenă H5N8 la păsări sălbatice:

- Măsurile aplicate vor avea în vedere legislația sanitară veterinară europeană și națională existentă la momentul actual privind controlul și monitorizarea Influenței aviare în populația de păsări sălbatice, respectiv Decizia CE 563/2005, Decizia CE 734/2005 iar la nivel național Ordinul Președintelui ANSVSA nr. 37/2007, Ordinul Președintelui ANSVSA nr. 28/2007 și Ordinul Președintelui ANSVSA nr. 147/2006;
- În cazul evoluțiilor focarelor de boală la păsările domestice, se vor aplica măsurile specifice Directivei CE 94/2005 și a Ordinului Președintelui ANSVSA nr. 54/2007;
- Luând în considerare evoluția unei Influențe Aviare de înaltă patogenitate alta decât H5N1, măsurile vor fi aplicate atât la nivelul unei zone de control stabilite și identificate corespunzător cât și la nivelul întregului județ;
- Stabilirea zonei specifice de monitorizare sanitară veterinară va lua în considerare factorii geografici, limnologici, administrativi, ecologici și epizootici legați de speciile de păsări sălbatice, de caracteristicile virusului influenței aviare și de structurile de supraveghere;
- Atunci când în urma unei analize de risc epidemiologic, care include analiza factorilor de risc pentru introducerea virusului de la păsările sălbatice la păsările domestice și analiza factorilor de risc de răspândire a virusului în cadrul unei exploatații și de la o exploatație la alta, inclusiv posibilul contact al păsărilor afectate cu păsările domestice, factori care sunt detaliați în Anexa I la Decizia CE nr. 734/2005, în vederea controlului și limitării răspândirii bolii, se poate stabili o zonă de control sanitar veterinar, denumită zonă de supraveghere sau monitorizare cu o rază minimă de 10 km în jurul locului unde a fost identificată/identificate pasărea/păsările sălbatice pozitive. Această analiză de risc va exista în dosarul de boală alături de celelalte documente specifice întocmite ca urmare a declarării cazului pozitiv la pasărea sălbatică;
- Această zonă trebuie să ia în considerare inclusiv habitatul păsărilor sălbatice, speciile existente și numărul lor;
- Atunci când autoritatea competentă constată, în urma analizei de risc că gripa aviară de înaltă patogenitate nu este prezentă în această regiune la păsările domestice, la celelalte păsări ținute în captivitate sau la păsările sălbatice din zona respectivă sau că nu există riscul ca păsările sălbatice infectate să transmită acest virus păsărilor domestice sau altor păsări ținute în captivitate sau păsărilor sălbatice din zonă și a confirmat existența unei protecții suficiente a păsărilor domestice sau a celorlalte păsări ținute în captivitate din zonă datorită prezenței barierelor naturale, această zonă de supraveghere poate fi mult mai mică, dar nu mai puțin de 1 km;
- **Măsurile aplicate în zona de supraveghere cu o rază de 10 km vor cuprinde cel puțin următoarele:**
 - activarea Centrului Local de Combatere a Bolilor la nivel județean;
 - identificarea tuturor exploatațiilor comerciale și non profesionale de păsări domestice, inclusiv acolo unde este cazul, identificarea separată a palmipedelor de restul păsărilor;

-vizite periodice (de două ori în perioada de restricții sanitare veterinare) și documentate la toate exploatațiile comerciale avicole și vizite specifice la toate exploatațiile non profesionale cu păsări , acordându-se prioritate celor considerate ca fiind mai expuse, inclusiv institute, grădini zoologice sau orice altă unitate care deține păsări domestice și/sau sălbatice; aceste vizite trebuie să includă o inspecție clinică a păsărilor domestice sau a altor păsări ținute în captivitate, inclusiv, după caz, atunci când situația o impune, prelevarea de probe în vederea unui examen specific de laborator. Toate prelevările de probe, atât în cazul păsărilor domestice cât și în cazul păsărilor sălbatice vor fi efectuate în conformitate cu Manualul de Diagnostic aprobat prin Decizia CE nr. 437/2006 și Manualul Operațional privind Influența Aviară;

- în regim de urgență va fi întocmită de către autoritatea competentă județeană o analiză de risc epidemiologic luând în considerație toți factorii geografici, limnologici, administrativi, ecologici și epizootici relevanți.

Daca analiza de risc epidemiologic concluzionează o probabilitate rezonabilă de contaminare în populațiile de păsări domestice în zona de risc, se vor aplica de către autoritatea competentă teritorială și restricții de mișcare după cum urmează:

- scoaterea păsărilor domestice și a altor păsări ținute în captivitate din exploatația în care sunt ținute;
- transportarea păsărilor domestice și a altor păsări ținute în captivitate prin zona de control, cu excepția tranzitului rutier sau feroviar prin această zonă fără descărcare sau oprire;
- expedierea de ouă destinate incubăției, recoltate din exploatațiile avicole care, la data recoltării, erau situate în zona de supraveghere;
- expedierea din zona de supraveghere a cărnii proaspete, a cărnii tocate, a cărnii separate mecanic, a preparatelor și a produselor din carne provenite de la păsări domestic originare din zona de supraveghere și din vânat sălbatic cu pene din zona respective;
- transportul sau împrăștierea gunoiului de grajd neprocesat de la păsările domestic sau alte păsări captive, aflate în zona de supraveghere , exceptând transporturile în vederea tratării corespunzătoare în conformitate cu Regulamentul CE 1069/2009;
- expedierea spre alte state membre și țări terțe de subproduse avicole provenite de la păsări domestice sau de la alte păsări ținute în captivitate sau de la vânat sălbatic cu pene din zona de supraveghere.

Măsurile specifice și suplimentare de biosecuritate la nivelul exploatațiilor comerciale avicole

Baza legală privind aplicarea măsurilor de biosecuritate în exploatații comerciale avicole o reprezintă Ordinul Președintelui ANSVSA nr. 147/2006.

De asemenea vor fi aplicate în plus, măsuri specifice de biosecuritate pe trei nivele de risc existente la nivelul unei exploatații comerciale, după cum urmează:

1. **zona administrativă** – este zona de birouri și alte amplasamente administrative care sunt conectate cu și sunt separate de restul zonelor de producție și depozitare legate direct cu exploatarea comercială în cauză. În această zonă, în perioada de risc maxim de introducere a influenței aviare în exploatare vor fi aplicate restricții de intrare, fiind afișat un indicator cu aceste restricții la intrarea în această zonă precum și asigurarea și încălțăminta sunt curate (libere de materiale organice care ar putea contamina);
2. **zona profesională** - este zona care face separarea între zona de producție (halele de creștere a păsărilor) și zona de administrativă; este zona unde se află depozitate materialele pentru așternutul care va fi folosit în hale, depozitul de furaje, platforma de gunoi de grajt etc. și este zona liberă de păsări sau materiale care intră în contact direct cu păsările.

Măsurile suplimentare de biosecuritate în ordine descrescătoare, pe baza proporționalității directe între fezabilitate, sustenabilitatea implementării precum și eficiența reducerii riscului de introducere și răspândirii virusului gripal sunt următoarele:

- prevenirea accesului mamiferelor- controlul rozătoarelor precum și interzicerea altor animale domestice și sălbatice (de exemplu pisiciile și câinii);
- atât spațiul de depozitare pentru materialele de așternut cât și furaje vor fi acoperite și închise, fără posibilitatea acces al mamiferelor și păsărilor domestice și sălbatice;
- se vor folosi haine și încălțăminte diferite de cele folosite în zona administrativă (de exemplu de unică folosință) care se vor schimba la nivelul filtrului sanitar. De asemenea, vor exista facilități de dezinfecție a încălțăminteii folosite;
- se va avea în vedere crearea unui mediu neatractiv pentru păsările sălbatice, prin prevenirea adăpostirii și cuibăritului păsărilor sălbatice. Astfel, vor fi curățate spațiile din jurul buncărelor de furajare, spațiile verzi vor fi menținute igienice cu iarba tunsă scurt, arborii și arbuștii cât mai neatractivi pentru păsările sălbatice. Eventualele fructe căzute pe jos vor fi culese, și pentru îndepărtarea păsărilor sălbatice pot fi folosite diferite instalații luminescente fixe sau rotative;
- se va avea în vedere drenarea apelor existente, și evitarea acumulării lor ca urmare a ploilor, ninsorii sau a altor acțiuni și fenomene naturale și artificiale.
- nu va exista nici o amenajare sau spațiu de cazare a altor păsări decât cele pentru care s-a obținut autorizația sanitară veterinară de funcționare (de exemplu păsări de companie sau pentru hobby);
- toate persoanele care vor intra în această zonă, vor fi supuse în prealabil unei intrări privind respectarea normelor de biosecuritate, adaptate la producția avicolă existentă, și înțelegând implicațiile privind respectarea sănătății animale, sănătății publice și a siguranței alimentare;
- rolurile și responsabilitatea anagațiilor din fermă trebuie să fie clar definite și explicate în consecință iar vizitele tehnice programate trebuie să se facă cu o

informarea prealabilă (înainte de autorizarea accesului în zona tehnică) asupra întinderii fermei și a planului de biosecuritate;

- vor fi aplicate restricții de acces al persoanelor care vor intra în această zonă, limitându-se strict la personalul angajat al fermei și acei vizitatori care sunt necesar să intre în acest perimetru;
- personalul angajat precum și orice vizitator va putea intra în această zonă precum și în zona de producție doar dacă au trecut 72 de ore de la orice contact cu păsări domestice, păsări sălbatice(inclusiv păsări de colivie), produse de origine avicolă și provenite de la păsări sălbatice, suproduse nedestinate consumului uman avicol, inclusiv gunoi de grajd;
- la nivelul exploatației va exista un registru de vizitatori în care vor fi trecute toate persoanele care au avut acces în exploatație;
- obligatoriu dezinfecția mijloacelor de transport, a roților, inclusiv a treptelor de acces la cabina șoferului care transportă furaj, materiale pentru așternut și limitarea la un număr cât mai mic de transporturi în această zonă;
- în măsura posibilităților transportul păsărilor, ouălelor de incubat, a gunoiului de grajd ar trebui să evite traversarea acestei zone profesionale sau atunci când o traversează, aceste transporturi să fie dezinfectate atât la intrarea cât și la ieșirea din zonă;
- toate vehiculele, materialele și cuștiile folosite, care au intrat în contact cu păsările, carcacele de păsări, ouă, precum și cu toate suprodusele nedestinate consumului uman avicol vor fi dezinfectate înainte de a fi folosite pentru o altă exploatație. De preferat este ca fiecare exploatație să dețină propriile facilități și materiale descrise anterior fără a fi transferate și folosite de la o exploatație la alta.

3. zona de producție – această zonă este reprezentată de halele de creștere ale păsărilor și care sunt fizic separate de celelate două zone. Măsurile suplimentare de biosecuritate în ordine descrescătoare, pe baza proporționalității directe între fezabilitate, sustenabilitatea implementării precum și eficiența reducerii riscului de introducere și răspândirii virusului gripal sunt următoarele:

- existența unei singure categorii de producție pe zona de producție, fără mixarea diferitelor categorii (de exemplu pui de carne cu curcani sau cu găini ouătoare);
- se va avea în vedere crearea unui mediu neatractiv pentru păsările sălbatice;
- vor fi aplicate restricții de acces al persoanelor care vor intra în această zonă, limitându-se strict la personalul angajat al fermei și acei vizitatori care sunt necesar să intre în acest perimetru, respectând în mod obligatoriu toate măsurile de biosecuritate;
- prevenirea accesului mamiferelor- controlul rozătoarelor precum și interzicerea altor animale domestice și sălbatice (de exemplu pisiciile și câinii). Controlul dăunătorilor va fi efectuat atât în interior spațiilor de cazare (fără accesul păsărilor domestice) cât și înafara acestor prin amplasare de momeli și/sau capcane;

- o atenție deosebită va fi acordată igienei la intrarea vizitatorilor în spațiile de producție prin schimbarea hainelor și a încălțămintei cu haine de unică folosință gen salopetă sau halat, igienizare mâinilor și prinderea corespunzătoare a părului sub o bonetă. Hainele și încălțămintea personalului angajat vor fi specifice fiecărei hale în parte. La intrarea în fiecare hală va fi demarcată vizibil o zonă de igienizare, în această zonă rămânând hainele de unică folosință și încălțămintea folosită. Atât la intrare cât și la ieșirea, încălțămintea va fi dezinfectată;
- se va avea în vedere controlul și asigurarea tuturor halelor în vederea evitării intrării păsărilor sălbatice în aceste hale;
- va fi folosită în adăparea păsărilor doar apă potabilă, fiind interzisă folosirea apelor de suprafață;
- managementul producției la nivelul exploatației va avea la bază principiul „totul plin” – „totul gol” de preferabil la nivelul întregii ferme. Se va evita transportul de furaj de la o hală la alta sau de la o exploatație la alta. Îndepărtarea cadavrelor, a ouălelor sparte și respinse se va face cel puțin zilnic. Procedura de curățenie și dezinfecție a autovehiculelor precum și mișcarea acestora va respecta aspectele descrise în cazul zonei profesionale;
- prevenirea prin orice mijloace a contactului direct dintre materiile fecale ale păsărilor sălbatice aflate în zbor și păsările domestice din hală;
- realizarea acțiunilor de curățare și dezinfecție a echipamentelor mobile folosite în această zonă va fi efectuată ori de câte ori este necesar atât la intrarea cât și la ieșire. Toate materialele vor fi menținute pentru fiecare hală de producție (ex: pe coduri de culori) și nu vor fi utilizate pentru mai multe ferme. Echipamentul imobil va fi curățat și dezinfectat după fiecare ciclu de producție;
- depozitarea gunoiului de grajd și a așternutului folosit nu va fi efectuată în apropierea halelor de creștere și vor fi imediat îndepărtate după finalizarea ciclului de producție;
- vehiculele care transportă furaj și material pentru așternutul de grajd nu vor avea acces direct în zona de producție, acțiunile se vor efectua prin transbordare;
- eliminarea cadavrelor se va efectua la distanță de halele de producție și aproape de drumul public (accesibil din afara fermei). Congelarea este recomandată, deoarece facilitează depozitarea pe termen mai lung și transportul ulterior cu o frecvență mai mică, care implică un risc mai redus decât transporturile frecvente către unități de procesare;
- în cazul exploatațiilor comerciale de curcani este necesară menținerea unui așternut curat și uscat. Acest aspect este particularitatea în exploatarea efectivelor de curcani și care afectează prin conținutul așternutului biosecuritatea acestor exploatații. Pielele care trebuie să fie utilizate nu pot fi tratate termic. Prin urmare, există riscul introducerii în așternut a materiilor fecale contaminate. În plus, așternutul atrage păsările sălbatice și rozătoarele.
O atenție deosebită este necesară în exploatațiile de curcani pentru a preveni contactul direct cu păsările sălbatice și pentru a preveni contaminarea

așternutului de către păsările sălbatice. O analiză detaliată a infrastructurii și a biosecurității este necesară pentru a reduce riscurile menționate anterior. De asemenea, se poate lua în calcul utilizarea de materiale alternative pentru așternut;

- în cazul exploatațiilor comerciale de palmipede, în plus față de măsurile de biosecuritate specifice, va fi interzis accesul păsărilor la orice luciuri de apă, bălți, amenajări hidrologice, păsările fiind închise în adăposturi evitându-se contactul cu păsările sălbatice;
- zilnic, de la data declarării cazului pozitiv la pasărea sălbatică, până la ridicarea măsurilor specifice de control și monitorizare sanitar veterinară, toate exploatațiile comerciale aflate în această zonă de supraveghere, vor fi monitorizate sub control oficial sanitar veterinar, în ceea ce privește cazurile de morbiditate apărute, procent de mortalitate, mișcări de efective precum și luarea în calcul a criteriilor prevăzute de Anexa II din Decizia CE nr. 734/2005;
- totodată se vor efectua controale periodice privind aplicarea și respectarea măsurilor de biosecuritate conform unui program de control bine stabilit pe întreaga perioadă de supraveghere sanitară veterinară. De asemenea, vor fi solicitate acestor exploatații întărirea măsurilor de biosecuritate și prezentarea spre aprobarea autorității competente a planurilor de biosecuritate actualizate cu indicarea acestor măsuri;
- toate mișcările comerciale de păsări și produse de origine animală (avicole) precum și mișcările de subproduse nedestinate consumului uman, inclusiv gunoi de grajd vor fi notificate în prealabil autorității competente județene de origine și de destinație și supuse controlului și autorizării acestora atât pentru mișcările intrajudețene cât și interjudețene.

Măsuri specifice și suplimentare de biosecuritate la nivelul exploatațiilor non-profesionale :

-prevenirea oricărui contact direct și indirect între păsările sălbatice vii, în special cele de apă, și păsările domestice și alte păsări, în special rațele și găștele. Astfel, este interzis accesul păsărilor domestice la luciuri de apă, lacuri, bălți, râuri și orice altă amenajare hidrologică artificială sau naturală;

-separarea în cadrul gospodăriei, în măsura posibilităților a rațelor și găștelor de alte păsări domestice;

- se interzice creșterea păsărilor domestice în aer liber, acestea fiind ținute închise obligatoriu în spații de cazare special amenajate;

- se interzice adăparea păsărilor domestice cu apă din rezervoarele de apă de suprafață accesibile păsărilor sălbatice;

- se interzice intrarea mai multor persoane, în zona de exploatare a păsărilor domestice, mișcările limitându-se la o singură persoană (proprietarul exploatației);
- prevenirea contactului cu alte specii de mamifere, inclusiv rozătoare și alte animale de companie;
- se vor aplica măsuri suplimentare de evitare a introducerii/diseminării unei eventuale infecții prin folosirea unei încălțăminte diferită în spațiul de exploatare a păsărilor domestice;
- se interzice utilizarea păsărilor din ordinul Anseriformes și Charadriiformes ca păsări momeală;
- se interzice regruparea păsărilor domestice și a altor păsări ținute în captivitate cu ocazia târgurilor, piețelor, expozițiilor sau a altor reuniuni;
- în regim de urgență prin toate mijloacele de comunicare accesibile, toți deținătorii de păsări vor fi informați despre măsurile impuse precum și despre obligativitatea notificării medicului veterinar de liberă practică concesionar și DSVSA județean asupra oricărei suspiciuni de boală, caz de mortalitate și morbiditate manifestate la păsările aflate în proprietate.

Măsuri privind controlul și monitorizarea păsărilor sălbatice:

- intensificarea supravegherii oficiale a populațiilor de păsări sălbatice, în special a păsărilor de apă, precum și continuarea supravegherii păsărilor moarte sau bolnave, în colaborare, după caz, cu asociații de profil, institute, vânători și ornitologi amatori implicați în monitorizare păsărilor sălbatice , și notificarea autorității competente a păsărilor descoperite moarte, precum și îndepărtarea, în măsura posibilului, a carcaselor de păsări moarte de către un personal care a fost informat cu precizie cu privire la măsurile necesare pentru a se proteja împotriva unei infecții cu virusul și pentru a împiedica transmiterea acestuia la animalele sensibile. În acest sens doar persoanele instruite și în condiții de maximă siguranță și securitate vor manipula aceste cadavre.
- în cazul identificării cadavrelor de păsări sălbatice în stare avansată de deteriorare, făcându-le astfel improprie testelor de laborator, acestea vor fi îndepărtate corespunzător și distruse prin ecarisare într-o unitate specifică autorizată sanitar veterinar.
- se interzice eliberarea în natură a vânatului cu pene ținut în captivitate.
- se interzice vânarea păsărilor sălbatice sau capturarea acestora din natură, cu excepția cazului în care autoritatea competentă a eliberat o autorizație pentru scopuri specifice
- se interzice utilizarea păsărilor din ordinul Anseriformes și Charadriiformes ca păsări momeală.

-campanii care să informeze publicul și să sensibilizeze proprietarii de păsări domestice sau de alte păsări ținute în captivitate, vânătorii și ornitologii amatori și prestatorii de servicii legate de divertisment acvatic asupra obligativității notificării oricărui suspiciuni de boală precum și despre eventualele restricții aplicate. De asemenea, o atenție sporită și o conștientizare asupra riscurilor introducerii și diseminării bolii va fi comunicată vânătorilor, care pot transmite virusul de la sălbatic la domestic atât în exploatațiile non profesional cât și comerciale care nu dețin măsuri stricte de biosecuritate.

Toate controalele efectuate în exploatații non-profesionale și comerciale vor fi efectuate în așa fel încât să se evită introducerea și difuzarea virusului influenței aviare, respectându-se toate măsurile specifice descrise în Manualul Operațional privind Influența Aviară.

Toate controalele efectuate în exploatații non- profesionale și comerciale vor avea în vedere prevederile Manualului de Diagnostic aprobat prin Decizia CE nr. 437/2006.

Formularistica folosită în activitățile prezentate anterior va fi cea descrisă în Manualul Operațional, acolo unde este cazul.

- **Durata măsurilor aplicate în zona de supraveghere sanitară veterinară** va lua în considerare factorii geografici, limnologici, administrativi, ecologici și epizootici cu privire la influența aviară, pe parcursul cel puțin 30 de zile, de la data la care prelevările efectuate la păsările sălbatice au permis confirmarea prezenței influenței aviare H5N8.

- Totuși, autoritatea competentă poate decide, ca urmare a rezultatului favorabil al unei evaluări a riscurilor, luând în considerare factorii menționați anterior, să suspende măsurile prevăzute în supraveghere, chiar în cazul în care se descoperă noi păsări sălbatice infectate, cu condiția ca cel puțin 21 de zile să treacă de la delimitarea inițială a zonei, să nu apară nici un focar de influență aviară de înaltă patogenitate H5N8, și să nu se fi înregistrat nici o suspiciune de influență aviară în populația de păsări domestice și la alte păsări ținute în captivitate , în această zonă.

Măsuri aplicate la nivelul județului unde s-au diagnosticat influența aviară înalt patogenă H5N8

- O operativă zilnică privind numărul de controale efectuate în zona de supraveghere sanitară veterinară, data estimativă a finalizării acestor controale, orice modificare în statusul de sănătate al păsărilor domestice și sălbatice, precum și o monitorizare a eventualelor exploatații comerciale aflate în această zonă care să cuprindă cel puțin informațiile solicitate prin nota de serviciu ANSVSA nr. INTRANET 6485/2016, va fi transmisă la ANSVSA de către DSVSA-ul județean pe raza căruia se aplică măsurile.
- La nivel județean se va întocmi un program de măsuri menit să aplice toate acțiunile legate de supravegherea și detectarea timpurie a gripei aviare la păsările domestice precum și să preîntâmpine orice transmitere a virusului influenței aviare de la păsări

sălbatică la păsări domestice și transmiterea virusului de la o exploatare la altă exploatare. În acest context vă rugăm să aveți în vedere analiza factorilor de risc specificați în Decizia CE nr. 734/2005, precum și orice alți factori de risc identificați de dumneavoastră în contextul controlului și monitorizării influenței aviare.

- Tot la nivel județean va fi elaborat/reactualizat Planul de Contingență pentru influența aviară, ca în cazul apariției unei situații epidemiologice legată de influența aviară, să se poată interveni rapid și eficient în conformitate cu legislația sanitară veterinară în vigoare.
- La nivelul exploatareilor comerciale avicole de pe raza județului, vor fi efectuate cât mai curând posibil, controale oficiale privind aplicarea și menținerea măsurilor de biosecuritate.
- Se va menține în permanență o stare de vigilență și monitorizare a oricăror notificări venite din teritoriu.
- Obligativ orice intrare în laboratorul sanitar veterinar și pentru siguranța alimentelor județean de probe și cadavre de păsări (domestice și sălbatică) cu suspiciunea de influență aviară va fi notificată în regim de urgență la nivelul ANSVSA.
- Facem precizarea că aceste măsuri descrise anterior, sunt măsurile minime care pot să fie implementate în cazul identificării unui caz pozitiv la păsări sălbatică. Autoritatea competentă județeană, în baza anchetelor epidemiologice desfășurate, a analizei factorilor de risc epidemiologici locali identificați precum și în funcție de evoluția epidemiologică a influenței aviare în zonă, poate aplica măsuri suplimentare cu scopul de a preveni introducerea influenței aviare în populația de păsări domestice sau transmiterea și răspândirea bolii de la o exploatare la alta.

Cu stimă,

DIRECTOR GENERAL ADJUNCT
Dr. Ioana NEGHIRLĂ

Consilier SCB: Dr. Stroe Claudiu
Dr. Drăgan Nicolae



Appendix 2

AUTORITATEA NAȚIONALĂ SANITARĂ VETERINARĂ ȘI PENTRU SIGURANȚA ALIMENTELOR

DIRECȚIA GENERALĂ SANITARA VETERINARA

SI PENTRU SIGURANTA ALIMENTELOR

Nr.

Se aprobă,

PREȘEDINTE - SECRETAR DE STAT

Dr. Geronimo BRĂNESCU

Propun a se aproba,

VICEPREȘEDINTE - SUBSECRETAR DE STAT

Dr. Laszlo CSUTAK NAGY

NOTĂ DE SERVICIU

Direcțiile Sanitare Veterinare și pentru Siguranța Alimentelor - toate
În atenția Directorului Executiv

Institutul de Diagnostic și Sănătate Animală
În atenția Doamnei Director - Conf. Univ. Dr. Florica BĂRBUCEANU
Institutul de Igienă și Sănătate Publică Veterinară
În atenția Doamnei Director – Dr. Rodica TĂNĂSUICĂ

Subiect:

- I. *Măsuri aplicate la nivelul exploatațiilor cu păsări existente la nivelul României precum și măsuri specifice aplicate ca urmare a suspiciunii/confirmării unui caz/focar de influență aviară;*
- II. *Măsuri ce se dispun în abatoare asupra cărnii de pasăre obținute de la păsările din exploatații aflate în zonele de protecție, în conformitate cu prevederile Directivei 2005/94/CE, privind măsurile comunitare de combatere a influenței aviare;*

I. În ultima perioadă au fost diagnosticate șase noi focare de influență aviară de înaltă patogenitate, subtipul H5N8, la populația de păsări domestice și păsări captive sălbatice din gospodăriile ale populației, respectiv în județul Tulcea, Prahova, Mureș, Brașov și Bacău. Toate aceste focare au avut ca element comun contactul direct cu păsările sălbatice, aflate pe

diferite amenajări hidrologice. Totodată, până la data prezentei note, a fost confirmat un număr de 31 de cazuri la păsări sălbatice, cele mai multe dintre acestea fiind identificate la lebede.

Având în vedere modificările climatice din ultima perioadă precum și numărul mare de păsări sălbatice existente la nivelul României, pe diferite amenajări naturale și artificiale se impun aplicarea următoarelor măsuri suplimentare de biosecuritate, **la nivelul gospodăriilor populației de pe tot teritoriul țării**, în vederea reducerii riscului contactului între păsările domestice și sălbatice, după cum urmează:

- prevenirea oricărui contact direct și indirect între păsările sălbatice vii, în special cele de apă, și păsările domestice și alte păsări, în special rațele și găștele. Astfel, **este interzis accesul tuturor păsărilor domestice și păsări sălbatice captive la luciuri de apă, lacuri, bălți, râuri și orice altă amenajare hidrologică artificială sau naturală.** O atenție deosebită se va acorda grădinilor zoologice, parcurilor de distracție, și a altor instituții sau unități care dețin păsări sălbatice captive, fiind obligatorie asigurarea protecției în vederea evitării oricărui contact direct sau indirect cu păsările sălbatice;

- separarea în cadrul gospodăriei, în măsura posibilităților a rațelor și găștelor de alte păsări domestice;

- se va evita prin toate mijloacele creșterea păsărilor domestice în aer liber, acestea fiind ținute închise obligatoriu în spații de cazare special amenajate; atunci când acest lucru nu este posibil, hrănirea și adăparea păsărilor se va realiza într-o zonă acoperită la care nu pot avea acces păsările sălbatice;

- se interzice adăparea păsărilor domestice cu apă din rezervoarele de apă de suprafață accesibile păsărilor sălbatice;

- se va evita intrarea mai multor persoane, în zona de exploatare a păsărilor domestice, mișcările limitându-se la o singură persoană (proprietarul exploatației);

- se va avea în vedere prevenirea contactului cu alte specii de mamifere, inclusiv rozătoare și alte animale de companie;

- se vor aplica măsuri suplimentare de evitare a introducerii/diseminării unei eventuale infecții prin folosirea unei încălțăminte diferite în spațiul de exploatare a păsărilor domestice sau a unui amplasament special amenajat pentru dezinfectia încălțămintei;

- se va acorda o atenție sporită asupra riscurilor introducerii și diseminării bolii de către vânători, care pot transmite virusul de la sălbatic la domestic prin păsări vânată și prelucrate în exploatațiile non profesionale sau prin echipamentele (ustensilele) folosite la vânătoate cât și în cele comerciale care nu dețin măsuri stricte de biosecuritate, inclusiv exploatații tip A.

În ceea ce privește exploatațiile comerciale autorizate/înregistrate sanitar veterinar, veți solicita o reactualizare și întărire a măsurilor generale și specifice de biosecuritate aplicate la nivelul acestor exploatații. Astfel, toate programele de biosecuritate aferente fiecărei unități avicole vor fi revizuite și reavizate de către fiecare DSVSA – județeană, după introducerea de măsuri suplimentare de biosecuritate, cu scopul de a evita introducerea și diseminarea virusului influenței aviare.

În ceea ce privește monitorizarea păsărilor sălbatice, acesta va fi intensificată, în special în zonele în care păsările sălbatice sunt staționare, în perioada de iarnă, monitorizare efectuată de către administratorii fondurilor cinegetice, cu raportare către DSVSA județeană o oricăror modificări a statusului de sănătate a acestor păsări.

Se va avea în vedere efectuarea în regim de urgență de instruirii cu toți medicii veterinari oficiali și de liberă practică împuterniciți concesionari iar de la nivelul

exploatațiilor comerciale avicole, cu administratorii și medicii veterinari împuterniciți. De asemenea aceste instruirii vor fi efectuate și cu administratorii fondurilor de vânatoare.

Tematica instruirilor va fi reprezentată de documente legislative în vigoare, note de serviciu ANSVSA precum și prevederile manualului de diagnostic și a manualului operațional privind influența aviară. Procesele verbale cu aceste instruirii, vor fi transmise la ANSVSA până la data de 15.02.2017 la adresa de email raportari-gripaaviara@ansvsa.ro

Măsurile aplicate ca urmare a apariției unei suspiciuni/confirmări de focar/caz de influență aviară în populația de păsări domestice și sălbatice.

Definiții:

Caz de boală- reprezintă diagnosticarea bolii la o pasăre/păsări sălbatice.

Focar de boală- reprezintă diagnosticarea bolii la păsări domestice și alte păsări captive aflate într-o exploatație.

În cazul apariției unei suspiciuni/confirmări de focar de influență aviară în populația de păsări domestice, sunt aplicate măsurile de control și combatere specifice, respectiv prevederile Directivei CE 94/2005, Ordinului Președintelui ANSVSA nr. 54/2007, Decizia CE 437/2006 precum și prevederile manualului operațional pentru influența aviară și boala de Newcastle. **Toate măsurile aplicate în zona de focar precum și în zonele de protecție și supraveghere vor avea în vedere, în mod obligatoriu corelarea cu măsurile stipulate de Decizia CE 437/2006 care aprobă manualul de diagnostic pentru influența aviară, respectiv capitolul IV, punctul 8. De asemenea, în cazul apariției unei suspiciuni într-o exploatație, în funcție de rezultatele preliminare ale anchetei epidemiologice și a unei analize de risc documentate, autoritatea competentă poate aplica restricții temporare circulației păsărilor domestice, a celorlaltor păsări captive și ouălor, precum și a vehiculelor utilizate în sectorul păsărilor domestice într-o zonă definită sau pe întreg teritoriul statului membru în cauză, pe o perioadă de maxim 72 de ore.**

La apariția unei suspiciuni/confirmări de caz de influență aviară H5N8 în populația de păsări sălbatice se vor avea în vedere prevederile notei de serviciu ANSVSA nr. 6530/2017. Zonarea arealului de supraveghere și control va fi efectuată pe o rază de 10 km în jurul cazului identificat.

Suplimentar, vor fi aplicate măsuri specifice de biosecuritate în exploatațiile cu păsări (gospodării ale populației) menționate anterior precum și după cum urmează:

- prevenirea contactului cu alte specii de mamifere, inclusiv rozătoare și alte animale de companie;
- se interzice utilizarea păsărilor din ordinul Anseriformes și Charadriiformes ca păsări momeală;
- se interzice regrouparea păsărilor domestice și a altor păsări ținute în captivitate cu ocazia târgurilor, piețelor, expozițiilor sau a altor reuniuni;
- **în regim de urgență prin toate mijloacele de comunicare accesibile, toți deținătorii de păsări vor fi informați despre măsurile impuse precum și despre obligativitatea notificării medicului veterinar de liberă practică concesionar și DSVSA județean asupra oricărei suspiciuni de boală, caz de mortalitate și morbiditate manifestate la păsările aflate în proprietate.**

De asemenea se va avea în vedere aplicarea măsurilor suplimentare de biosecuritate la nivelul exploatațiilor comerciale, menționate în nota de serviciu ANSVSA nr. 6530/2017; o atenție deosebită se va acorda mișcărilor de personal, și a contactului de care l-au avut cu

păsări domestice și sălbatice. În acest sens o procedură specifică va fi implementată la nivelul exploatațiilor comerciale, alături de celelalte deja existente privind securitatea accesului în ferme și spații de producție a personalului angajat care nu trebuie să dețină sau să aibă contact cu păsări domestice și sălbatice.

O situație privind inspecțiile efectuate în exploatațiile cu păsări (gospodării ale populației și exploatații comerciale) va fi transmisă la ANSVSA pe adresa de email raportari-gripaaviara@ansvsa.ro conform machetelor anexate. Această situație va fi transmisă de trei ori pe perioada gestionării focarului/ caz de influență aviară după cum urmează:

1. După încheierea recensământului și inspectarea stării de sănătate a păsărilor; (după apariția suspiciunii, pe baza informațiilor existente la nivelul DSVSA- județean, va fi transmisă o catagrafie cu numărul și numele localităților aflate în viitoare zone de restricție sanitară veterinară, numărul de exploatații cu păsări- gospodării și unități comerciale cu profil avicol, precum și numărul aproximativ de păsări, din care palmipede).
2. După dezinfectia finală și ridicarea măsurilor pe zona de protecție al focarelor din populația de păsări domestice;
3. După închiderea cazului/focarului de boală.

Toate documentele elaborate ca urmare a gestionării suspiciunilor/confirmărilor de cazuri/focare de boală de influență aviară, conform manualului operațional, vor fi arhivate la DSVSA județean și transmise la ANSVSA în ordinea derulării evenimentelor pe adresa de email raportari-gripaaviara@ansvsa.ro. **Atenționăm faptul că planul de măsuri întocmit pentru gestionarea cazului/focarului de boală va fi aprobat în Centrul Local de Combatere al Bolilor, cu identificarea clară a responsabilităților și a instituțiilor responsabile de ducere la îndeplinire a măsurilor impuse, respectând legislația sanitară veterinară în vigoare, în funcție de amploarea epizootiei.**

De asemenea, va fi întocmit un plan de măsuri suplimentar pentru județul afectat, care să cuprindă măsuri suplimentare de protecție și biosecuritate, cu scopul de a limita și reduce riscul de transmitere a influenței aviare din populația de păsări sălbatice la păsări domestice precum și diseminarea de la o exploatație la alta, luând în calcul toți factorii de risc, descriși în Decizia CE nr. 734/2005, Anxa I.

O operativă săptămânală privind monitorizarea exploatațiilor comerciale de la nivelul județului afectat va fi transmisă pe adresa de email raportari-gripaaviara@ansvsa.ro folosind modelul din macheta atașată.

Această operativă săptămânală va fi transmisă în fiecare marți pentru săptămâna anterioară încheiată numai în perioada gestionării focarului/cazului de boală.

În ceea ce privește recoltările de probe efectuate în zonele de restricție sanitară veterinară (**protecție și supraveghere în focare de boală**), la nivelul exploatațiilor comerciale și gospodării ale populației, în funcție de situația epidemiologică sau alte aspecte identificate legislativ(derogări etc.), numărul și tipul de probe sunt legiferate în Decizia CE nr. 437/2006 care aprobă manualul de diagnostic pentru influența aviară. Pentru ridicarea restricțiilor sanitare veterinare, în zona de protecție, este necesar respectarea prevederilor Directivei nr. CE 94/2005 și a capitolului IV, punctul 8.11, literele (a), (b) și (c) din Decizia CE 437/2006.

În cazul exploatațiilor comerciale aflate în zona de protecție a focarelor de boală, în baza unei analize de risc efectuată de autoritatea competentă, vor fi recoltate un eșantion standard de probe format din cel puțin cinci păsări bolnave/moarte, în cazul care există și/sau cel puțin 20 de tampoane traheale/orofaringeale, 20 de tampoane cloacale și cel puțin 20 probe probe sânge, în baza capitolului IV, punctul 8.11, litera (a) din Decizia CE 437/2006.

Autoritatea competentă poate decide că nu este necesară prelevarea unei serii complete de eşantioane standard, ci numai a unui subansamblu din eşantioanele respective.

În cazul exploatațiilor nonprofesionale aflate în zona de protecție a focarelor de boală, probele vor fi recoltate cu precădere din gospodării situate cât mai aproape de gospodăria afectată și de mediile acvatice care favorizează transmiterea virusului de la pasările salbatice și alți vectori, din gospodăriile cu număr mare de efective, din gospodării care să aibă în efectivele de pasări atât palmipede cât și galinacee. Vor fi recoltate un număr minim de 20 de probe serologice sau 20 de tampoane cloacale pe fiecare localitate aflată în zona de protecție, având la bază capitolul IV, punctul 8.11, litera (b) din Decizia CE 437/2006.

În cazul existenței unei suspiciuni de boală (gospodării ale populației și exploatații comerciale) va fi recoltat eşantionul standard de prelevări probe descris la capitolul IV, punctul 4 din Decizia CE 437/2006.

În cadrul analizei de risc efectuate de autoritatea competentă locală și având la bază ancheta epidemiologică, se va acorda o atenție sporită situației în care, în imediata vecinătate a zonei de protecție sanitară veterinară (3km) își desfășoară activitatea unități cu profil avicol.

Repopularea exploatațiilor comerciale se va efectua respectând prevederile Ordinului Președintelui ANSVSA nr. 54/2007 articolul 49, Directiva CE 94/2005, articolul 49, precum și prevederile Manualului Operațional pentru influență aviară și boala de Newcastle.

În mod special, în cazul exploatațiilor non profesionale unde au fost diagnosticate focare de boală, după efectuarea dezinfectiilor prevăzute de legislația în vigoare, cu rezultate conforme ale probelor de sanitație care atestă eficiența dezinfectiei, în cazul în care proprietarul dorește introducerea de noi păsări în exploatație, această introducere se va efectua după 21 de zile de la finalizarea dezinfectiei. Măsurile prevăzute la punctul 3, din articolul 49, Ordinul Președintelui ANSVSA nr. 54/2007 vor fi aplicate acestor efective de păsări, toate monitorizările și controalele fiind efectuate de medicul veterinar oficial și medicul veterinar de liberă practică concesionar. În cazul în care nu se dorește repopularea exploatației după 21 de zile de la finalizarea dezinfectiei finale, o populare ulterioară cu păsări se va putea efectua după 6 luni de la ultima dezinfecție efectuată în focar.

II. În conformitate cu prevederile articolului 23 al Directivei 2005/94/CE care stabilește măsurile comunitare de combatere a influenței aviare, după confirmarea oficială din partea LNR – IDSA, **păsările din exploatațiile aflate în zona de protecție**, pot fi sacrificate într-un abator desemnat de DSVSA județeană competentă teritorial, autorizat sanitar veterinar în conformitate cu prevederile Ordinului președintelui ANSVSA nr. 57/2010, cu respectarea următoarelor condiții:

1. Păsările să fie supuse unui examen clinic (ante-mortem la nivelul exploatației de origine) efectuat de către medicul veterinar, cu 24 de ore înaintea trimerii la abator;

2. După caz, au fost efectuate teste de laborator cu rezultate favorabile asupra păsărilor din exploatația de origine, în conformitate cu manualul de diagnostic și legislația sanitară veterinară în vigoare;

3. Transportul păsărilor se realizează cu vehicule sigilate de către DSVSA județeană, sau, după caz, sub monitorizarea sa;

4. În cazul sacrificării păsărilor într-un abator de pe raza altui județ decât cel care are zona protecție, DSVSA județeană va informa autoritatea responsabilă cu supravegherea sanitară veterinară a abatorului de destinație asupra intenției de a trimite păsările pentru sacrificare și se va asigura că acestea au fost sacrificate în această unitate, în baza acordului scris din partea ANSVSA;

5. Păsările destinate sacrificării care provin din zona de protecție sunt adăpostite și sunt sacrificate separat în locuri și momente diferite (de preferință la sfârșitul zilei de lucru), după care spațiile și facilitățile din abator se curăță și se dezinfectează corespunzător înainte de sacrificarea altor păsări;

6. Medicul veterinar oficial responsabil cu supravegherea sanitară veterinară a abatorului de destinație, se asigură că la sosirea în abator se efectuează încă un examen ante-mortem aprofundat al păsărilor, iar carcasele și organele obținute sunt supuse examenului post-mortem;

7. În unitatea de abatorizare desemnată, vor fi implementate proceduri de asigurare corespunzătoare a trasabilității cărnii de pasăre obținută de la păsările din zonele de protecție, proceduri ce vor fi verificate de către serviciile veterinare competente teritorial.

Carnea și organele rezultate în urma sacrificării păsărilor provenite din zona de protecție pot fi plasate pe piața națională în vederea consumului uman, dar nu trebuie să facă obiectul schimburilor intracomunitare sau exportului către alte țări terțe.

De asemenea, carnea și organele rezultate în urma sacrificării păsărilor provenite din zona de protecție, trebuie să poarte pe etichetă o marcă diferită de cea ovală stabilită în Regulamentul (CE) nr. 853/2004, respectiv o marcă de formă hexagonală, conform Figurii nr. 2, Anexa nr. 1 la Ordinul președintelui ANSVSA nr. 10/2008 privind marcarea și certificarea cărnii proaspete și a altor produse de origine animală, care să cuprindă următoarele înscrisuri:

- a) în partea superioară "ROMÂNIA", cu litere majuscule;
- b) în centru: numărul de autorizare sanitar-veterinară al unității acordat de autoritatea veterinară centrală pentru unitatea de abatorizare;
- c) în partea inferioară: "CONTROLAT SANITAR-VETERINAR", cu litere majuscule.

Dimensiunile mărcii hexagonale precum și dimensiunile înscrisurilor trebuie stabilite astfel încât să fie vizibile și lizibile.

Carnea provenită de la pasări din exploatațiile aflate în zona de protecție trebuie tranșată, transportată și depozitată separat de carnea destinată schimburilor intracomunitare și exportului către țările terțe (obținută de la pasări provenite din exploatații aflate în alte zone decât cele de protecție) și trebuie utilizată astfel încât să se evite introducerea ei în produse pe bază de carne destinate acestui tip de schimburi, cu excepția cazului în care a fost supusă unuiu dintre tratamentele prevăzute în Anexa III la Directiva 2002/99/CE.

În cazul în care există suspiciunea de influență aviară, pentru care se așteaptă confirmarea oficială, DSVSA județeană poate, în baza unei analize de risc documentate și a anchetei epidemiologice, să dispună măsurile suplimentare justificate prevăzute la Capitolul III – FOCARE SUSPECTATE, art. 10 din Directiva 2005/94/CE, inclusiv a măsurilor de reținere oficială/sechestru la nivelul abatorului a loturilor de carne obținute, până la emiterea buletinului de analiză oficială pentru confirmarea/infirmarea diagnosticului, luând în considerare toți factorii de risc și perioada de incubație a bolii.

În caz de confirmare oficială a diagnosticului de influență aviară, aceste loturi de carne de pasăre nu pot face obiectul schimburilor intracomunitare sau al exportului către țări terțe, fiind supuse măsurilor prevăzute mai sus în prezenta notă de serviciu.

Aplicarea măsurilor de reținere oficială/sechestru trebuie să se realizeze de medicii veterinari oficiali cu respectarea prevederilor cuprinse la art. 25, alin. (10) și (11) din Ordinul președintelui ANSVSA nr. 10/2008, cu modificările și completările ulterioare, privind marcarea și certificarea cărnii proaspete și a altor produse de origine animală, respectiv:

- a) se întocmește documentul de reținere oficială/sechestru prevăzut de legislația sanitar-veterinară în vigoare;
- b) se vor aplica etichete cu rol de sigiliu, cu următoarele forme și mențiuni, după caz:

- benzi de culoare galbenă, rezistente la umiditate și condiții de temperatură scăzută, cu lățimea de 12 cm, pe care este înscris vizibil, cu majuscule următorul text: "ANSVSA - DSVSA(județul)..., REȚINERE OFICIALĂ/SECHESTRU SANITAR-VETERINAR".

- etichete autoadezive de culoare galbenă, rezistente la umiditate și la condiții de temperatură scăzută, cu lățimea de 12 cm și lungimea de 20 cm, pe care este înscris în mod vizibil, cu majuscule următorul text: "ANSVSA - DSVSA ... (județul)..., REȚINERE OFICIALĂ/SECHESTRU SANITAR-VETERINAR".

Literele vor fi de culoare neagră și vor avea o înălțime de 8 cm;

Disponerea ridicării măsurii de reținere/sechestru sanitar-veterinar se realizează numai de medicul veterinar oficial în baza buletinului de analiză oficial de infirmare a suspiciunii, fiind interzise scoaterea și plasarea pe piață a cărnii de pasăre de către operatorul din domeniul alimentar fără acordul scris din partea medicului veterinar oficial, competent teritorial.

Luați măsuri de conformare și de aplicare a prezentelor dispoziții.

DIRECTOR GENERAL,

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Annex O – Applied prevention and control measures on avian influenza United Kingdom

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1. Scope

This document provides a brief overview of specific prevention and control measures applied in The United Kingdom during the autumn-winter (October 2016- April 2017) in relation to avian influenza. There is only information provided that is relevant to the implementation of the following selected measures: increasing awareness of stakeholders and the general public, housing order, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand still, derogations on restriction zone implementation after risk assessment and hunting. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

The United Kingdom consists of four separate devolved administrations and each has transposed the legislation into their national law. As such, each administration and Ministers will take their own decisions based on the evidence available. However, the risk assessors across the devolved administration share evidence and risk assessment methodology to ensure a harmonised approach; but there are other factors, such as the poultry density, migratory wild bird areas, which will differ from one region to another and therefore which drove the decision making process.

2. Timing of the applied prevention and control measures

Table 1 provides a timeline on the main events that triggered actions in relation to the selected prevention and control measures. More information on the actions taken is provided in the sections below.

Table1: Overview of main communication actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
06/12/2016	Horizon scanning identified increase in risk because of cases in wild birds in Netherlands and North France.	Avian Influenza Prevention Zone in place for England, Scotland and Wales: all keepers of poultry, captive birds, gamebirds must implement enhanced biosecurity and make every effort to prevent contact with wild birds. This can be through housing or netting. Biosecurity guidance provided for keepers of birds.	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers. Livestock auctioneers.
16/12/2016	First poultry outbreak (IP1) in housed fattening turkeys (Lincolnshire)	3km PZ and 10km SZ in place with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Poultry and captive bird keepers in the restriction zone only.
20/12/2016	Triggered by the first case	General licence for gatherings revoked for any poultry or gamebirds in England, Scotland and Wales	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon

			fanciers. Livestock auctioneers
22/12/2016 – 23/12/2017	First wild bird case (Wales, Scotland and England)	No zones, no additional measures	Information made available on the gov.uk website.
23/12/2016	Triggered by wild bird cases in England, Scotland and Wales	Avian Influenza Prevention Zone in Northern Ireland. Keepers of poultry and captive birds required to keep their birds indoors or separate from wild birds. Ban on gatherings of poultry and gamebirds.	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers. Livestock auctioneers.
30/12/2016	First non-commercial outbreaks (Wales)	3km PZ and 10km SZ in place, with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Information made available on the gov.uk website.
06/01/2017	Risk assessment concluded that the risk of incursions into poultry was still high	AI Prevention Zone extended in England, Scotland and Wales for the full three month grace period. Voluntary housing / netting and enhanced biosecurity, as well as a ban on gatherings for poultry and gamebirds.	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers.
06/01/2017	Non-commercial outbreak in Yorkshire	3km PZ and 10km SZ in place, derogation from surveillance and testing in the 3km zone as no commercial premises present. All other measures as per legislation.	Information made available on the gov.uk website.
16/01/2017	Second turkey farm in Lincolnshire	3km PZ and 10km SZ in place, with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Information made available on the gov.uk website.
25/01/2017 – 02/02/2017	1st of three linked gamebird premises	3km PZ and 10km SZ in place, with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Information made available on the gov.uk website.
26/01/2017	Third turkey farm in Lincolnshire	3km PZ and 10km SZ in place, with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Information made available on the gov.uk website.
02/02/2017	First wild bird tests positive in Northern Ireland	Extension of the Prevention Zone until 16 th March 2017.	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers.
13/02/2017	Commercial parent broiler breeders in Suffolk	3km PZ and 10km SZ in place, with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Information made available on the gov.uk website.
24/02/2017	Non-commercial in Northumberland	3km PZ and 10km SZ in place, derogation from surveillance and testing in the 3km zone as no commercial premises present. All other measures as per legislation.	Information made available on the gov.uk website.
28/02/2017	End of the three month grace period for labelling free range eggs and poultry meat	New Avian Influenza Prevention Zone put in place in Higher Risk Areas in England. Scotland and Wales and lower risk areas of England kept in place voluntary separation of poultry from wild birds and enhanced biosecurity. For the HRAs new measures include	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers.

		mandatory housing or netting for commercial keepers.	
16/03/2017	End of the three month grace period for labelling free range eggs and poultry meat	Northern Ireland extended the period of enhanced biosecurity requirements until 31 st May	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers.
13/04/2017	Nearly 2 months since the last poultry outbreak and no wild bird cases for 6 weeks	Prevention Zone requirements in the HRAs for mandatory housing or netting is lifted in England.	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers.
04/05/2017	Non-commercial outbreak in Lancashire	3km PZ and 10km SZ in place, with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Information made available on the gov.uk website.
06/05/2017	Non-commercial outbreak in Lancashire	3km PZ and 10km SZ in place, with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Information made available on the gov.uk website.
15/05/2017	Risk assessment that the level had reduced in most of England and would continue to do so over the summer	England-wide AIPZ lifted and replaced by a localised AIPZ in the districts of Lancashire, Cumbria and Merseyside.	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers.
31/05/2017	Risk assessment concluded the overall risk level had reduced.	Prevention Zone expired for all the UK (except localised AIPZ in England). All gatherings allowed under licence.	Poultry industry, backyard keepers, veterinary profession, gamekeepers, pigeon fanciers. Livestock auctioneers.
03/06/2017	Non-commercial outbreak in Norfolk	3km PZ and 10km SZ in place, with all associated visits and testing; no hunting or releasing gamebirds allowed in the zones.	Information made available on the gov.uk website.
14/06/2017	Risk assessment and results of surveillance in the Lancashire suggest level has reduced in these regions of NW England	AIPZ lifted in the districts of Lancashire, Cumbria and Merseyside revoked.	Information made available on the gov.uk website.

3. Increasing awareness of the stakeholders and the general public

Horizon scanning and risk assessment is provided through the gov.uk website (<https://www.gov.uk/government/collections/animal-diseases-international-monitoring>) and this is linked to from various other groups – Scottish, Welsh and Northern Irish Governments, National Farmers Union, British Poultry Veterinary Association and other NGOs.

In addition, there are general websites for the Devolved Administrations for avian influenza information:

<https://www.gov.uk/guidance/avian-influenza-bird-flu>,
<http://www.gov.scot/Topics/farmingrural/Agriculture/animal-welfare/Diseases/disease/avian>,
<http://gov.wales/topics/environmentcountryside/ahw/disease/avianflu/?lang=en>,
<https://www.daera-ni.gov.uk/articles/avian-influenza-ai>

4. Housing order

- In late November 2016, the risk level to the UK of an incursion of H5N8 HPAI was raised to medium, as a result of the outbreaks being reported in Northern Europe and the level of migratory birds which were coming from the affected areas to the UK.
- In Great Britain, a housing order was put in place across the whole country (England, Scotland and Wales) from December 6th 2016 initially for just 30 days. The main push for this was from the Industry rather than as an evidence-based decision. Risk assessment suggested there was no benefit accrued from housing birds alone, and instead this needed to be done as part of a suite of biosecurity measures. The order therefore required all poultry keepers to house birds, where practicable, and where not practicable, to make every effort to separate them from wild birds through netting the range area or the pond and making the site unattractive to wild birds. The requirement was not mandatory and there was no enforcement. Guidance on biosecurity and welfare was produced for commercial and smallholders. There were very few reports of welfare issues and those that were reported were relatively minor.
- The same requirement for housing where practicable and increased biosecurity was put in place in Northern Ireland initially on 23rd December 2016 until the 16th March 2017 and this was extended until the 31st May as the threat level was assessed to remain high. There were findings of wild birds testing positive for H5N8 HPAI around one area with high migratory wild bird density in February and March but no poultry outbreaks were reported.
- In England, Scotland and Wales, after the 30 day period (expired on the 5th January 2017), and during which two outbreaks in England and in Wales were reported, the housing order was extended to cover a full grace period of 12 weeks. This was to allow poultry keepers to prepare for relabeling free range eggs, meat and products, in the event of the housing order being left in place. The same requirements were in place for housing where practicable.
- By the 21st February, the UK had reported 8 outbreaks of H5N8 HPAI and several wild bird findings. The Protection Zones around all the outbreaks had been merged with the Surveillance Zones.
- On the 24th February, the majority of poultry keepers in England (75%) and all the keepers in Scotland and Wales were allowed to let the birds out provided they had prepared the range, by cleaning up any wild bird droppings and making sure the whole area was not attractive to wild birds and keeping the poultry separate from wild birds. The keepers were asked to risk assess whether it was safe to let birds out, in collaboration with their private vet. This was communicated to all poultry keepers on the various Devolved Administrations websites, through social media and through text alerts. Many poultry keepers chose to keep their birds indoors anyway and to re-label free range products.
- However, some poultry keepers in England were considered to be at higher risk. These areas were mapped and the affected poultry farms were required (ie it was mandatory) to continue to house birds. These HRAs were defined by the proximity to areas of known high numbers of wild waterfowl of target species for AI surveillance (according to the British Trust for Ornithology WEBS counts) and taking into account a "foraging distance" – which was an average daily distance which ducks would be expected to go to feed, based on the scientific literature. We did not include the flight distance of gulls (~30-50 km a day) as that would have covered the whole of GB. We did not consider resident wild waterfowl, as the mallard duck is ubiquitous across all GB. Wales and Scotland had a different approach, because they have different migratory bird populations and far fewer migratory birds of the target species.
- The HRA map was provided as an interactive map on the gov.uk website – where poultry keepers could enter their postcode to see if they fell within an area. The CVO also took part in a web chat for poultry keepers where he explained the rationale and answered questions from industry and stakeholders. Those keepers with part of a property outside an HRA were considered to be completely outside the HRA. The reasoning behind the HRAs is provided here: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/592587/ai-hra-risk-considerations.pdf

- By the 13th April, two more outbreaks only had been reported and no further wild bird findings since the 20th March. Therefore on 13th April the risk level was reduced to low for migratory wild birds, medium for resident wild birds and low for poultry and as a result the housing order was lifted and poultry were allowed out (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/611566/gra-avian-flu-spring2017.pdf). However on the 29th April 2017, two new cases were found in Lancashire, which meant the HRAs in that area were reviewed on 11th May 2017 and expanded slightly to cover the main waterways where resident wildfowl would be found (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/613652/updated-gra-avian-flu-may2017.pdf). Therefore the housing order was lifted in most of England and only left in place in some areas of Lancashire, Merseyside and Cumbria.
- On the 1st June, a 13th outbreak was reported in South Norfolk in a backyard premises, but as it was clear that disease had been present at the premises for several weeks, no additional housing was required for the region (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/618749/updated-gra-avian-flu-june2017.pdf) and the final orders in North East England were lifted on 13th June 2017.
- Every poultry keeper from the 12th February 2017, no matter where they were in GB, had to continue to apply enhanced biosecurity such as feeding indoors, making sure there were no wild bird contacts and feed, water and bedding was free of contamination, making sure anyone dealing with the birds wore clean clothes and footwear and used clean equipment.

5. Strengthening biosecurity measures (other than housing order)

The initial Prevention Zone in England, Scotland and Wales included a voluntary measure around housing or netting birds and a mandatory requirement to improve biosecurity. Governments worked closely with veterinary, NGO and industry associations, to raise awareness and produce guidance for improving biosecurity. Information for commercial, backyard keepers, the gamebird industry and pigeon fanciers was produced as easy-to-read posters. The UK Chief Veterinary Officer did media interviews while facebook and twitter were used extensively.

Guidance is provided for poultry keepers on expected biosecurity requirements, but these are not enforceable as the requirements were voluntary outside the higher risk areas and therefore there is a distinct variation in the quality of biosecurity from one holding to the next. However if reports were made of birds being kept with no biosecurity in the higher risk areas, then the local authorities may have followed up.

C&D facilities at entry points into poultry sheds should be part of these practices. All slaughter houses, egg or meat packing plants, livestock vehicle companies should have C&D procedures as part of their regular practices. These may be checked by local authorities or egg marketing inspectors, Meat hygiene inspectors as part of the regular checks on such businesses.

An area of uncertainty in terms of biosecurity measures would be around on-farm slaughter facilities or farm gate sales.

6. Preventive culling

None was applied.

7. Regional stand still (beyond the restriction zones specified in the EU Regulation)

None was applied.

8. Derogations on restriction zone implementation after risk assessment

This was applied in two cases – both were non-commercial holdings with a few poultry present. In both cases, no epidemiological links to commercial premises were identified and no commercial premises in the 3km zone. The source of disease was clearly contact with infected wild waterfowl and therefore the risk assessment suggested that a derogation could be applied for carrying out visits and testing to premises in the PZ. Movements under licence still applied for the zones, a census was still carried out and commercial farms in the SZ were followed up with a phone call to check there were no clinical issues on the farm.

9. Hunting

A risk assessment was carried out to look the decision of whether to continue to allow hunting in areas outwith any disease control zones.

The RA considered published evidence on the likelihood of disturbance of birds during shooting, the different types of hunting allowed (wildfowling, gamebird shoots, pest control) and the season for hunting.

Expert opinion from the National Expert Group of ornithologists and conservationists was used to peer review the risk assessment and to provide additional expert advice.

The conclusion was not to ban hunting in areas outside a disease control zone, as any disturbance caused is only temporary – most game birds are trained to return to the area where they are fed at night; for wildfowling, this is a solitary “sport” where the hunter shoots at birds as they fly over his head at coastal migration spots; they are often unsuccessful and the birds will not be greatly disturbed. Pest shooting (pigeons and crows) is a limited activity and not aimed at birds which are considered target species.

Please also note: no action was merited to prevent pigeon racing. A risk assessment was carried out and this is available at: <https://www.gov.uk/government/publications/qualitative-risk-assessment-assessing-the-risk-of-pigeon-racing-in-spreading-avian-influenza>

Early Detection

Guidance is available for poultry keepers on the clinical signs to look for and these include loss of appetite, fewer eggs laid and increased mortality.

We do not specifically mention any measurable levels for production although the guidance in the EU legislation will be used as part of epidemiological investigations by official veterinarians.

In the case of H5N8 HPAI certain types of poultry (Galliformes) showed very severe clinical signs within a matter of hours and therefore this longer term production monitoring was considered more beneficial when used as early detection for LPAI or for HPAI in Anseriforme poultry.

During the risk period (November 2016 to July 2017) the veterinary authorities have investigated **140 poultry report cases**, in both backyard and commercial holdings, across England, Scotland and Wales which were all negated after either clinical examination or laboratory testing.

References

Please see our links to the gov.uk website within the text above.