

Annex B – Applied prevention and control measures on avian influenza

Annex to:

EFSA (European Food Safety Authority), ECDC (European Centre for Disease Prevention and Control), EURL (European Reference Laboratory for Avian Influenza), Adlhoch C, Fusaro A, Gonzales JL, Kuiken T, Marangon S, Niqueux É, Staubach C, Terregino C, Aznar I, Muñoz Guajardo I and Baldinelli F, 2022. **Avian influenza overview September – December 2022**. EFSA Journal 2023;21(1):7786, 63 pp. <https://doi.org/10.2903/j.efsa.2023.7786>

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This document provides an overview of specific prevention and control measures applied in Belgium, Bulgaria, Croatia, Denmark, France, Hungary, Ireland, Italy, Moldova, the Netherlands, Norway, Poland, Portugal, Spain, from 3 September to 18 November 2022 in relation to avian influenza outbreaks in poultry and in wild birds. Information is provided only if it is relevant to the implementation of measures such as increasing awareness of stakeholders and the general public, housing orders, strengthening biosecurity measures (other than poultry confinement), preventive culling, regional stand-stills, derogations on restriction zone implementation after risk assessment, hunting or any other relevant measures that have been applied. This document is made to support the EFSA working group in generating an overview on the application of the selected measures at EU level.

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1. Belgium

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1.1. Timing of the applied prevention and control measures

Table 1 provides a timeline of 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.

Table 1: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience
01/09/2022 - 21/09/2022	Avian flu in wild birds at variant locations in Belgium: Clavier, Oostduinkerke, Brugge, Koksijde, Zuienkerke, Knokke, Drongen, Gistel, Barvaux, Antoing, Kortenaeken, De Haan and Gent	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
21/09/2022	Outbreak of Avian flu in captive birds in Bocholt and Beernem and in a commercial poultry farm in Sint-Laureins	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
22/09/2022 - 27/09/2022	Avian flu in wild birds at variant locations in Belgium: Clavier, Antwerpen, Kortenaeken, Aalbeke and Brugge	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
27/09/2022	Outbreak of Avian flu in captive birds at Zwevezele	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
28/09/2022	Outbreak of Avian flu in a commercial poultry farm in Sint-Laureins	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
30/09/2022	Outbreak of Avian flu in a commercial poultry farm in Sint-Laureins	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
03/10/2022	Outbreak of Avian flu in a commercial poultry farm in Wingene	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
04/10/2022 - 05/10/2022	Avian flu in wild birds at variant locations in Belgium: Zelzate, Kinrooi, Bredene, Brugge and Avelgem	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
05/10/2022	Since mid-September there had been an increased circulation of bird flu in wild birds resulting in a very high environmental pressure on all poultry farms.	From 5 October 2022, in addition to the general measures, the following additional measures apply: All poultry from registered establishments must be caged or protected in such a way as to avoid contact with wild birds. All poultry and other birds must be fed indoors (or under nets) to reduce the risk of coming into contact with wild birds. Watering poultry, hobby poultry and other captive birds with water from surface water supplies or	Poultry associations, general public and website FASFC

		rainwater to which wild birds have access is prohibited, unless that water has been treated to inactivate any viruses present.	
05/10/2022	Outbreak of Avian flu in captive birds in Diksmuide	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
06/10/2022 - 09/10/2022	Avian flu in wild birds at variant locations in Belgium: Hologne-sur-Geer, Kortrijk and Brugge	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
10/10/2022	Outbreak of Avian flu in a commercial poultry farm in Tongeren	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
12/10/2022	Avian flu in wild birds at variant locations in Belgium: Woumen, Oudsbergen and Clavier	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
13/10/2022	Lifting protection zone of Beernem	This zone becomes surveillance zone Beernem	Poultry associations, general public and website FASFC
14/10/2022	Lifting protection zone of Sint-Laureins1	This zone becomes surveillance zone Sint-Laureins	Poultry associations, general public and website FASFC
15/10/2022	Lifting protection zone of Bocholt	This zone becomes surveillance zone Bocholt	Poultry associations, general public and website FASFC
17/10/2022	Outbreak of Avian flu in captive birds in Theux	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
18/10/2022	Avian flu in wild birds at variant locations in Belgium: Oudenaarde, Rochefort, Clavier and Brugge	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
19/10/2022	Lifting protection zone of Sint-Laureins2	This zone becomes surveillance zone Sint-Laureins	Poultry associations, general public and website FASFC
20/10/2022	Outbreak of Avian flu in captive birds in Evergem	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
20/10/2022	Avian flu in wild birds at variant locations in Belgium: Roeselare, Veldegem, Kapellen, Lanaken and Heers	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
21/10/2022	Lifting protection zone of Sint-Laureins3	This zone becomes surveillance zone Sint-Laureins	Poultry associations, general public and website FASFC
21/10/2022	Outbreak of Avian flu in captive birds in Aywaille	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
22/10/2022	Lifting surveillance zone of Beernem	No more additional measures in this zone	Poultry associations, general public and website FASFC
24/10/2022	Outbreak of Avian flu in a commercial poultry farm in Hoogstraten	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
24/10/2022	Lifting protection zone of Wingene	This zone becomes surveillance zone Wingene	Poultry associations, general public and website FASFC

24/10/2022	Lifting surveillance zone of Bocholt	No more additional measures in this zone	Poultry associations, general public and website FASFC
25/10/2022	Avian flu in wild birds in Cordes	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
27/10/2022	Outbreak of Avian flu in captive birds in Eke	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
27/10/2022	Lifting protection zone of Diksmuide	This zone becomes surveillance zone Diksmuide	Poultry associations, general public and website FASFC
28/10/2022	Outbreak of Avian flu in a commercial poultry farm in Hoogstraten	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
30/10/2022	Lifting surveillance zone of Sint-Laureins	No more additional measures in this zone	Poultry associations, general public and website FASFC
31/10/2022	Lifting protection zone of Tongeren	This zone becomes surveillance zone Tongeren	Poultry associations, general public and website FASFC
02/11/2022	Lifting surveillance zone of Wingene	No more additional measures in this zone	Poultry associations, general public and website FASFC
28/10/2022 - 07/11/2022	Avian flu in wild birds at variant locations in Belgium: Eghezee, Bornem, Deurne, Heusden, Kruisem, Hoboke, Puurs, Zonhoven and Amay	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
05/11/2022	Lifting surveillance zone of Diksmuide	No more additional measures in this zone	Poultry associations, general public and website FASFC
05/11/2022	Outbreak of Avian flu in captive birds in Brugellette	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
07/11/2022	Lifting protection zone of Theux	This zone becomes surveillance zone Tongeren	Poultry associations, general public and website FASFC
09/11/2022	Lifting surveillance zone of Tongeren	No more additional measures in this zone	Poultry associations, general public and website FASFC
10/11/2022	Lifting protection zone of Evergem	This zone becomes surveillance zone Evergem	Poultry associations, general public and website FASFC
10/11/2022	Outbreak of Avian flu in a commercial poultry farm in Turnhout	Demarcation of protection and surveillance zones around the outbreak – measures as described in the AHL	Poultry associations, general public and website FASFC
14/11/2022	Lifting protection zone of Hoogstraten 1	This zone becomes surveillance zone Hoogstraten 1	Poultry associations, general public and website FASFC
16/11/2022	Lifting surveillance zone of Theux	No more additional measures in this zone	Poultry associations, general public and website FASFC
17-18/11/2022	Avian flu in wild birds at different locations in Belgium: Soignies, Nijlen, Oostkamp, Diksmuide, Gent, Mariakerke, Woumen and Lievegem	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC

19/11/2022	Lifting protection zone of Hoogstraten 2 Lifting surveillance zone of Evergem	This zone becomes surveillance zone Hoogstraten 2 No longer additional measures in this zone	Poultry associations, general public and website FASFC
22/11/2022	Outbreak of Avian flu in captive birds in Lennik	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
23/11/2022	Lifting surveillance zone of Hoogstraten 1	No longer additional measures in this zone	Poultry associations, general public and website FASFC
25/11/2022	Outbreak of Avian flu in captive birds in Lontzen	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
25/11/2022	Avian flu in wild birds at different locations in Belgium: Moerbeke-Waas, Gent, Oostende, Asper, Keiem, Smeermaas, Hélécinne, Senef and Louvain-la-Neuve	No specific measures except disinfection communication to the mayors and adaptation of the website	Poultry associations, general public and website FASFC
28/11/2022	Lifting surveillance zone of Hoogstraten 2	No longer additional measures in this zone	Poultry associations, general public and website FASFC
01/12/2022	Lifting protection zone of Turnhout	This zone becomes surveillance zone Turnhout	Poultry associations, general public and website FASFC

1.2. Increasing awareness of the stakeholders and the general public

From the first outbreaks in neighbouring countries Belgium went into a period of increased risk. There was a communication to the stakeholders and the general public to increase awareness and to remind to strictly apply the biosecurity rules.

From the 15th of November 2021 the following measures were applied throughout Belgian territory:

- All poultry and birds from professional poultry holdings and hobbyists , must be confined or shielded in such a way as to avoid contact with wild birds. This measure shall not apply to ratites.
- Feeding and watering poultry and other captive birds must be carried out indoors or in such a way that contact with wild birds is impossible.
- It is prohibited to water poultry and other captive birds with water from surface water resources or rainwater to which wild birds have access, unless that water has been treated to inactivate any viruses present.
- All collections (exhibitions, competitions, markets) of poultry and birds are prohibited, both for professional companies and hobbyists. The sale of poultry and birds by professional traders on public markets is permitted.

All documents are placed on the website:

- <https://www.favv-afscs.be/professionelen/dierlijkeproductie/dierengezondheid/vogelgriep/> (professional)
- <https://www.favv-afscs.be/consumenten/extra/vogelgriep/> (non-professional)

From the 14th of May 2022 some measures were adjusted:

- All poultry and birds from professional poultry holdings and hobbyists , should no longer be confined or shielded in such a way as to avoid contact with wild birds.
- Feeding and watering poultry must be carried out indoors or in such a way that contact with wild birds is impossible. It is prohibited to water poultry with water from surface water resources or rainwater to which wild birds have access, unless that water has been treated to inactivate any viruses present.

- Feeding and watering other captive birds can be carried out outdoors again.
- All collections (exhibitions, competitions, markets) of poultry and birds are prohibited, both for professional companies and hobbyists. The sale of poultry and birds by professional traders on public markets is permitted.

Since mid-September 2022, there had been a greatly increased circulation of bird flu in wild birds resulting in a very high environmental pressure on all poultry farms.

From the 5th of October 2022, in addition to the general measures, the following additional measures apply:

- All poultry from registered establishments must be caged or protected in such a way as to avoid contact with wild birds.
- All poultry and other birds must be fed indoors (or under nets) to reduce the risk of coming into contact with wild birds.
- Watering poultry, hobby poultry and other captive birds with water from surface water supplies or rainwater to which wild birds have access is prohibited, unless that water has been treated to inactivate any viruses present.

1.3. Housing order

From the 5th of October 2022 on poultry and birds from professional poultry holdings (registered establishments) should be confined. In view of the continuing risk of bird flu, the FASFC is calling upon everyone to remain vigilant, to continue to apply strict biosecurity. The FASFC also advises placing all birds that are kept outside under nets to reduce the risk of infection with bird flu.

1.4. Strengthening biosecurity measures (other than the housing orders)

See description increasing awareness.

1.5. Preventive culling

We applied preventive culling in holdings (both professional and non-professional) where an outbreak of a highly pathogenic avian influenza was confirmed. If there is poultry in the immediate vicinity (100m) of an outbreak we also applied preventive culling of that poultry. All contact holdings from an outbreak were checked (also sampling) but there was no culling because there was no infection.

1.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

Regional standstill is only applied in the restriction zones.

1.7. Derogations on restriction zone implementation after risk assessment

After risk assessment derogations were given in the restriction zones:

- Derogation on slaughter of poultry from a surveillance zone
- Derogation on the unloading of hatching eggs from a surveillance zone
- Derogation on the prohibition of unloading poultry for slaughter
- Derogation for the vaccination of birds in approved zoos

All derogations were published on the website:

<https://www.favv-afsca.be/professionelen/dierlijkeproductie/dierengezondheid/vogelgriep/maatregelen.asp>

For the lifting of the restriction zones, a final screening was organised.

All professional farms in the zone, where poultry was still present, were sampled and the samples were analysed in our RefLab.

The zone was only lifted when all results were negative.

1.8. Hunting

No specific measures. It is also not a competence of the FASFC but a competence of the Regions.

2. Bulgaria

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2.1. Timing of the applied prevention and control measures

Table 2 provides a timeline of 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.

Table 2: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
21.10.2022	Confirmation of primary outbreak of HPAI in poultry	Delegated Regulation (EU) 2020/687: enhanced official inspections for biosecurity enhanced passive surveillance in wild birds ban for outdoor keeping poultry Ban for poultry market Ban for realising game wild birds	Official vets, poultry farmers

2.2. Increasing awareness of the stakeholders and the general public

Meetings with representatives of the poultry associations aimed at keeping them up to date with the epidemiological situation, present and further control measures to be enforced.

2.3. Housing order

Precautionary measures such as keeping poultry indoors, taking steps to separate them from wild birds and ensuring feed and water is not accessible to wild birds were also required.

2.4. Strengthening biosecurity measures (other than the housing orders)

Not applied.

2.5. Preventive culling

Not applied.

2.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

Not applied.

2.7. Derogations on restriction zone implementation after risk assessment

Derogation in line with the Delegated Regulation (EU 2020/687).

2.8. Hunting

Not forbidden.

3. Croatia

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3.1. Timing of the applied prevention and control measures

Table 3 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.

Table 3: Overview of the main actions

Date	Event that triggered action	Type of action taken
10/11/2022	Suspicion on HPAI in backyard flock keeping different poultry species in Gornji Stupnik, Zagreb County	The owner has reported increased mortality in backyard flock (6 dead of 153 poultry animals in total) to authorised veterinary organisation (AVO).
	AVO visit to the farm and sampling	AVO has confirmed suspicion, ordered confinement of poultry. He took 6 carcasses and shipped them to National reference laboratory (NRL; Poultry centre, Zagreb) for laboratory testing.
	Suspicion on primary outbreak of HPAI	AVO has reported suspicion on Avian influenza (AI) to Competent veterinary authority (CVA) and to the Veterinary Inspection.
11/11/2022	Official veterinary visit	During visit of affected establishment, veterinary inspectors ordered implementation of preventive and control measures in accordance with Delegated Regulation 2020/687.
	Confirmation of AI, subtype H5N1 by NRL.	NRL delivered the Report of AI subtype H5N1 confirmation to AVO, CVA and veterinary inspectors. Pathogenicity determination in progress.
12/11/2022	Official veterinary visit, including preventive culling of animals of listed species.	Preventive culling of remaining 146 poultry animals. One peacock has escaped from the premises, and was not available for culling, nor found since.
16/11/2022	Confirmation of HPAI, subtype H5N1 by NRL.	NRL delivered report of HPAI confirmation.
17/11/2022	Declaration of restriction zones (establishment and repeal determined), including protection and surveillance zone	CVA established restriction zones, including protection and surveillance zone. Repeal of restriction zone on 15 th December 2022 determined.
continuously	Report for the public via internet media	Full report on HPAI outbreak and activities performed for control and eradicate HPAI in restriction zones was published on official web-sites of CVA and Ministry of Agriculture and distributed to press and TV.
21/11/2022	Instruction on inventory and official visits in restriction zone	Competent veterinary authority issued an Instruction to AVO in restriction zone.
	Epidemiological investigation in restriction zones: 1) inventory, 2) official veterinary visit to representative establishments Daily reports on implementation.	Protection zone: - listing and official veterinary visit to establishments keeping over 100 birds or commercial flocks for eggs, meat or breeding. Surveillance zone: - listing and official veterinary visit of all establishments keeping over 250 poultry and captive birds or commercial flocks for eggs, meat or breeding.

3.2. Increasing awareness of the stakeholders and the general public

Brief description of the communication and activities:

- Continuously monitoring epidemiological situation related to AI in EU and surrounding countries and publishing summary of relevant data to raise awareness for increased risk of avian influenza, including recommendations to the poultry producers and bird keepers and other relevant information on official website of the Ministry of Agriculture and Veterinary and Food Safety Directorate (<http://www.veterinarstvo.hr/>).
- Preparing information for general public via media (TV and newspapers, portals).
- Continuously informing authorised veterinarians about signs of disease, reporting of suspicion and confirmation of the disease, epidemiological situation in neighbouring countries, and transmission of knowledge about AI to the animal owners, via emails.
- Written communication with Croatian hunting association in order to increase awareness among hunters.

3.3. Housing order

A) **Decision on establishment of restriction zones** in City of Zagreb and Zagreb County, issued by the Veterinary and Food Safety Directorate (CVA) on 17th November 2022. It defined borders of restriction zones (list of settlements) in perimeter of 10 km around affected establishment, including a protection zone (radius of ~3 km) and surveillance zone (radius of ~10 km). Repeal of restriction zone on 15th December 2022 was determined by this act.

Decision also prescribed implementation of control measures in restriction zone in accordance with Delegated Regulation 2020/687, including the following:

On affected holding:

- 1) Obligatory isolation of animals of listed species suspected of HPAI infection, and subsequent preventive culling thereof (146 remained poultry of mixed species, including laying hens, roosters, guineafowl, turkey, goose and ducks),
- 2) Obligatory safe-keeping of bedding (fresh and used), products, materials or substances suspected of contamination and with potential for further transmission of HPAI virus, in place isolated and protected from contact with insects, rodents, other kept and wild animals,
- 3) Implementation of additional stringent biosecurity measures to avoid the risk of disease spread, and
- 4) Implementation of instructions and orders on disease control brought about by veterinary inspection.

In restriction zones:

- 1) Ban of movement of live animals and products of animal origin of listed species, with derogations, and
- 2) Inventory and veterinary visits to establishments prescribed keeping poultry and captive birds.

B) **Order on measures for preventing occurrence and spread of avian influenza in the Republic of Croatia** (Official Gazette, No 135/2022) applied from 22nd November 2022 and applicable on whole territory of Croatia, prescribes following biosecurity measures:

- Obligatory keeping of all poultry and captive birds in closed confinements.
- Separate keeping of ducks and geese from other poultry species.

- Obligatory keeping of feeders and drinkers for poultry, game birds and birds in captivity in closed or covered areas, which prevents the landing and the contact of wild birds with food and water.
- The water supply of poultry, game birds and captive birds with water from outdoor water tanks, or surface water tanks to which wild birds have access to is prohibited.
- Mandatory implementation and maintenance of sanitary conditions and biosecurity measures in all facilities keeping poultry and captive birds:
 - use of personal protective equipment (PPE); disinfection of hands and footwear upon entering the facility; cleaning, washing and disinfection of footwear upon leaving the facility,
 - it is forbidden to leave the building in the same protective clothing and footwear,
 - ban of entry into the facility of unauthorized personnel,
 - disinfection of facilities and equipment in accordance with technological requirements, using approved disinfectant in the prescribed concentration,
 - storage of animal feed and litter in facilities protected from access of wild birds and rodents.
- Mandatory implementation of sanitary and biosecurity measures during movement of poultry and captive birds, their hatching eggs, their products and by-products, including carcasses.
- Mandatory reporting of all the changes in the health status, drop of productivity and/or feed and water intake, or changes in behaviour of poultry and captive birds to the competent authorized veterinary organization.
- Mandatory reporting of death or any contact of poultry and captive birds with potentially infected birds to authorized veterinary organizations.

3.4. Strengthening biosecurity measures (other than the housing order)

Annual Order on measures to protect animal health from infectious and parasitic diseases and their financing (OG, Nos. 145/21 and 90/22) prescribes obligatory implementation of biosecurity measures for poultry producers keeping 250 birds and more.

3.5. Preventive culling

Preventive culling was applied only on affected establishment with confirmed cases of HPAI subtype H5N1.

On the establishments located in the restriction zones no preventive culling was applied.

3.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

Zoning details will be published in Commission Implementing Decision xxx amending the Annex to Implementing Decision (EU) 2021/64 on emergency measures in relation to outbreaks of highly pathogenic avian influenza in certain Member States.

Regional standstill (beyond the restriction zones specified in the EU regulation) was not implemented.

3.7. Derogations on restriction zone implementation after risk assessment

Not applied.

3.8. Hunting

Hunting officers are responsible for implementation of biosecurity measures in the area under their jurisdiction.

Biosecurity measures before, during and after the hunting ordered by Order on measures for preventing occurrence and spread of avian influenza in the Republic of Croatia (Official Gazette, No 135/2022) applied from 22nd November 2022 and applicable on whole territory of Croatia.

4. Denmark

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4.1. 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.

Table 4: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience
28/10/2022	An outbreak of highly pathogenic avian influenza H5N1 was confirmed in a holding with captive birds.	The DVFA established zones of 3 and 10 km around the holding and implemented the necessary measures according to Council Regulation (EU) 2020/687 to prevent spread of infection from the affected holding.	Poultry holdings, backyard holdings, poultry associations and general public.
09/11/2020	An outbreak of highly pathogenic avian influenza H5N1 was confirmed in holding with turkeys for slaughter.	The DVFA established zones of 3 and 10 km around the holding and implemented the necessary measures according to Council Regulation (EU) 2020/687 to prevent spread of infection from the affected holding.	Poultry holdings, backyard holdings, poultry associations and general public.

4.2. Increasing awareness of the stakeholders and the general public

The DVFA has continuously informed the stakeholders of the situation of HPAI. The stakeholders has been informed through several information platform.

Information has been published on the website www.fvst.dk where it is possible to get an overview of all findings in relation to HPAI.

More over the stakeholders has been contacted with information of the outbreaks through mail.

The general public as well as the stakeholders and hunter associations has also been informed trough press releases and social media. The staff of the DVFA call centre are prepared for answering questions from the public (via FAQ's).

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

DVFA uses the 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. The avian influenza situation in wild birds can be followed on the [Danish avian influenza database](#).

4.3. Housing order

Housing order was implemented on 23 November 2022 applicable for the whole country. The DVFA has implemented the housing order as a part of DVFA's strategy for implementing measures in relation to HPAI epidemic. A rapid risk assessment performed after findings of HPAI in wild birds in Denmark and outbreaks in several countries in Europe and near the Danish border, resulted in the risk level being raised to high.

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 fjord

The housing order is applicable for all production categories including zoos and poultry holdings and captive birds. Holdings of captive birds, with less than 100 birds, are excepted from the housing order, if products of the birds are used within the same household, and if there is no indirect or direct contact with poultry. Furthermore, Zoo birds vaccinated against avian influenza are excepted from the requirements.

The definition of housing: poultry/captive bird (please see above for exception for captive birds and zoo birds) have to be kept inside or fenced under roof, net or wire. Ducks, geese and ostriches are excepted from covering if wild birds effectively can be prevented from landing in the enclosure using other methods. Enclosures ≤ 40 m² are also excepted from covering. The housing order is implemented based on a national legal act. Information to the public is given through the media (press release), the DVFA homepage and Facebook.

Housing order: <https://www.retsinformation.dk/eli/lt/2022/1445>

Press release: <https://www.foedevarestyrelsen.dk/Nyheder/Aktuelt/Sider/Pressemeddelelser/2022/F%C3%B8devarestyrelsen-advarer-H%C3%B8j-risiko-for-fugleinfluenza.aspx>

4.4. Strengthening biosecurity measures (other than housing order)

On 23 November 2022, fairs, markets, shows or other gatherings of poultry or other captive birds were prohibited in the whole country. The DVFA can give permission to above mentioned activities if following criteria is met:

- The participating birds are exclusively from holdings of captive birds with less than 100 birds, and
- The participating birds are from holdings with no poultry, and
- The activities do not take place in a restriction zone established by the DVFA due to outbreaks of HPAI.

4.5. Preventive culling

Has not been applied.

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

Has not been applied.

4.7. Derogations on restriction zone implementation after risk assessment

Has not been applied.

4.8. Hunting

There has been no restrictions in regards to hunting. Information on biosecurity in connection with hunting has been published on the website www.fvst.dk

5. France

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5.1. Timing of the applied prevention and control measures

Table 1 provides a timeline of 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.

Table 5: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
August and September 2022	Several HPAI cases in wild birds on Atlantic coast and Several HPAI outbreaks in various zones (except in high density zones), mainly on turkeys and ducks	Local procedures of stamping out/disinfection, zoning, movement control, reinforced active surveillance in restricted areas	Public Instruction technique DGAL/SDSBEA/2022-605 Public Arrêté préfectoral départemental
29-09-2022	Increased mortality in native wild birds (mainly gulls and gannets) on the Northern and Atlantic coasts	The level of epizootic risk is qualified as "moderate" in the entire mainland France Sheltering of poultry in risk areas (wetland areas)	Public Order of 29 September qualifying the risk level for highly pathogenic avian influenza
13-10-2022	Several HPAI outbreaks in Brittany and others zones, mainly on turkeys and ducks	- Enlargement of restricted areas - Reinforced control measures in restricted areas: housing order (poultry and captive birds confinement), strengthening biosecurity, preventive culling, reinforced surveillance in poultry (weekly frequency and before movements) and in wild birds, movement control, hunting ban or possible under conditions	Public Instruction technique DGAL/SDSBEA/2022-771
31-10-2022	Several HPAI outbreaks in Pays-de-la-Loire (high density zone) and Brittany, mainly on turkeys and ducks	Same measures as 13-10-2022 with preventive culling and extension of sanitary break in high density areas (even if no HPAI outbreak in the area) resulting in lowering poultry population density	Public Instruction technique DGAL/SDSBEA/2022-812
08-11-2022	- Strong HPAI infection dynamics in the main wild bird migratory corridors in Europe - Previous mortality in native wild birds maintained	The level of epizootic risk is qualified as "high" in the entire mainland France Sheltering of all kept birds	Public Order of 08 November qualifying the risk level for highly pathogenic avian influenza

5.2. Increasing awareness of the stakeholders and the general public

Regular information points are set up with professionals and other stakeholders in addition to bilateral consultations with certain major stakeholders in the sector.

A health update is posted on the Ministry's website (<https://agriculture.gouv.fr/influenza-aviaire-la-situation-en-france>) to show the evolution of the epizootic. Press releases are issued at each significant event (<https://agriculture.gouv.fr/tous-les-communiqués-de-presse-influenza-aviaire-hautement-pathogene-diffuses-depuis-l'automne-2021>).

Technical instructions and emails are sent as necessary to the field and regional control services to ensure that they are fully aware of the epidemiological situation and the control strategies in place.

5.3. Housing order

Prevention measures:

HPAI risk levels are established according to the epidemiological situation in the migration corridors and the presence of outbreaks in the national territory. From the "moderate" national risk level, reinforced biosecurity measures are applied in the "priority risk areas" (wetlands) and the "diffusion risk areas" (concentration of farms). When the risk level is raised to "high", these constraints are applied for the whole territory. In the event of a high-risk level, additional constraints are imposed on "diffusion risk areas", including pre-movement screening.

The reinforced biosecurity measures were reviewed with all stakeholders and collected in an order published on 21 September 2021. These measures provide for the "sheltering" of poultry, adapted to the categories of poultry concerned and production systems.

Control measures:

As soon as an HPAI outbreak is suspected, control measures are imposed with the establishment of a temporary restricted zone. At this stage, poultry must be kept away from contact with wildlife.

Upon confirmation, the restricted zone is transformed into a protection zone, a surveillance zone and an additional restricted zone, according to the criteria set out in the EU Regulation 2020/687. Poultry and non poultry (captive birds) confinement are mandatory in these areas.

5.4. Strengthening biosecurity measures (other than the housing order)

Preventive measures:

In the event of a high risk level, additional constraints are imposed on "areas at risk of spreading", including pre-movement screening and a ban on any intervention in poultry farms other than those strictly necessary.

Control measures:

In the regulated HPAI zones, reinforced biosecurity measures are implemented in accordance with the EU regulation 2020/687 and the national decree of 18 January 2008 (hunting ban, gathering ban, etc.).

Due to the epizootic context, an additional restricted zone is in place beyond the 10 km (20 km in total) and infected wild birds zones are enlarged. Reinforced surveillance during production and before movements is in place in these two areas. Sampling for laboratory analysis are performed every week or twice a week on farms' equipment and corpses for early detection of a HPAI virus. Living animals are sampled for RT-PCR 48 hours before movements.

Also, an extension of 3 weeks of sanitary break is applied on establishments after lifting of protection zone and surveillance zone. This measure is also in place in the high density zones (even with no HPAI outbreak in these zones). These measures are applied in order to lowering the poultry population and, as a result, the risk of propagation of HPAI virus.

Every entering in production in the additional restricted zone and infected wild birds zone are authorized by competent authority which control biosecurity measures in the establishment.

5.5. Preventive culling

A peri-focal preventive culling is implemented around confirmed outbreaks (1km for all poultry and 3km for palmipeds and turkeys).

Much restricted measure is applied in Pays-de-la-Loire and Brittany. If the outbreak is confirmed in high density zones or close (< 30 km) to a high density zone, preventive culling or early slaughter for all poultry between 0 and 1 km, preventive culling or early slaughter for palmipeds and turkeys between 1 km and 3 km and early slaughter for palmipeds between 3 km and 10 km.

Preventive culling and early slaughter are always preceded by analysis on 60 live animals. Preventive culling is performed on site (or in slaughter if not possible on site).

5.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

Not applied.

5.7. Derogations on restriction zone implementation after risk assessment

Derogations from the movement ban may be granted in accordance with the requirements of EU Regulation 2020-687. These derogations are modulated according to the epidemiological situation.

Initially, these derogations only concerned hatching eggs and day-old chicks, eggs for consumption and poultry for slaughter. Outward movements of poultry to the slaughterhouse are only allowed within the restricted area. However, in case of unavailability of a suitable slaughterhouse in the area, permits for exit from the restricted perimeter may be allowed.

Depending on the evolution of the epizootic, additional derogations are foreseen such as the movement of ready-to-lay poultry. These movements of adult poultry are subject to enhanced biosecurity protocols and are initially restricted within the restricted zone.

5.8. Hunting

Hunting activities like game release is banned in protection and surveillance zone. These are possible in additional restricted zone and infected wild birds zones only after control of sanitary state of the animals.

Hunting is banned in protection zone and only in dry zones in surveillance zone. In the others areas, hunting is allowed under conditions. Waterfowl hunting is allowed under conditions like reinforced biosecurity, reduced number of captive bird on hunting sites and only hunters with little or no contact with poultry.

6. Hungary

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National Food Chain Safety Office

6.1. Timing of the applied prevention and control measures

Table 6 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.

Table 6: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience (if applicable)
04/11/2022	first poultry outbreaks	Increasing awareness, release housing order (poultry confinement), strengthening biosecurity, implement regional stand still, implement preventive culling, implement derogations on restriction zone	farmers, local authorities, poultry association, general public

		implementation after risk assessment	
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6.2. Increasing awareness of the stakeholders and the general public

All information on avian influenza is available on the website of the National Food Chain Safety Office. <https://portal.nebih.gov.hu/madarinfluenza>

The Chief Veterinary Officer (CVO) and head of the National Disease Control Centre has communicated the most important information on the epidemic to the national media.

6.3. Housing order

On 3 November 2022 the 3/2022 CVO Decision entered into force which ordered the closed keeping of poultry (excluding backyard) in the entire territory of the following counties identified as high risk: Bács-Kiskun, Békés, Csongrád-Csanád, Hajdú-Bihar, Szabolcs-Szatmár-Bereg, Győr-Moson-Sopron and Komárom-Esztergom.

6.4. Strengthening biosecurity measures (other than the housing order)

The 3/2017 CVO Decision about strengthening biosecurity requirements has been in force since the 2016/2017 HPAI epidemic.

6.5. Preventive culling

Preventive killing has been carried out in Bács-Kiskun county: contact holdings and holdings near the outbreaks.

6.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

From 11 November 2020 compulsory sampling was ordered before transport of waterfowl for further keeping (excl. day-old-chicks). Sampling has to be performed within 72 hours. Transport is approved without favourable result. This measure is still in force.

From 4 November 2022 stocking and movement ban of the waterfowls has been ordered in free areas of Bács-Kiskun and Csongrád-Csanád county. Movement is allowed only to a slaughterhouse for immediate slaughter with favourable result of laboratory test (swab samples within 72 hours).

From 4 November 2022 in free areas of Bács-Kiskun and Csongrád-Csanád county movement of non-waterfowls (excluding day-old chicks) is allowed only with favourable result of laboratory test (swab samples within 72 hours).

From 14 November 2022 stocking of waterfowls is allowed under strict conditions in free areas of the counties, but the movement of waterfowls (e.g. movement to force-feeding) is still forbidden.

6.7. Derogations on restriction zone implementation after risk assessment

Poultry movement from the restricted zones is approved only for immediate slaughter to designated slaughterhouses, other movement of the poultry is forbidden. From restricted zones 48 hours before the movement 60 swabs have to be sent to the NRL and the transport is approved only with favourable result.

6.8. Hunting

No specific measures.

7. Ireland

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7.1. 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.

Table 7: Table1: Overview of main actions

Date	Event that triggered action	Type of action taken	Target audience
ongoing throughout the reference period	Continued reports of cases of H5N1 in wild birds in Ireland. Since spring of 2022, the first case of the 2022/2023 season confirmed Avian Influenza H5N1 on 07/07/2022	Increase awareness of the presence of HPAI H5N1 in Ireland via social media awareness campaigns, release of 'Avian Influenza Updates' to interested parties (also published on DAFM website)	General public Poultry Industry Stakeholders
ongoing throughout the reference period	Confirmation of wild bird cases of HPAI H5N1	Regular meetings with poultry industry stakeholders	Poultry industry stakeholders
12/10/2022	Suspicion of Avian Influenza reported in a (1 st) captive bird flock	Sampling and submission of entire flock to Veterinary laboratory. All birds (n=6) had either died (n=3) or been euthanised (n=3) Premises restricted	Suspected premises
13/10/2022	Confirmation of HPAI H5N1 in the (1 st) captive bird flock	Risk assessment conducted, no links to poultry. Less than 50 captive birds onsite. Risk of spread of disease negligible. No restriction zones introduced	Confirmed premises
17/10/2022	Suspicion of Avian Influenza reported in the (2 nd) captive bird flock	Sampling and submission to Veterinary laboratory. Restriction of flock	Suspected premises
19/10/2022	Confirmation of HPAI H5N1 in the (2 nd) captive bird flock	Risk assessment conducted, no links to poultry. Risk of spread of disease negligible. Less than 50 captive birds on site. No restriction zones introduced	Confirmed premises
20/10/2022	Confirmation of HPAI H5N1 in the (2 nd) captive bird flock	Killing and destruction of all susceptible birds registered to the establishment	Confirmed premises
04/11/2022	Confirmation of HPAI H5N1 in the (2 nd) captive bird flock	Preliminary Cleaning and disinfection of affected establishment	Confirmed premises
12/11/2022	Suspicion of Avian Influenza reported in a turkey fattening flock due to increase in mortalities	Sampling and submission to Veterinary laboratory. Restriction of flock	Suspected premises
13/11/2022	Confirmation of 1 st outbreak of H5N1 in a poultry (fattening turkey) flock	Awaiting Pathogenicity results	Suspected premises
14/11/2022	Confirmation of 1 st outbreak of HPAI H5N1 in a poultry (turkey fattening) flock	Introduction of Restriction zones around infected establishment to include a 3km Protection zone and 10km Surveillance zone	All poultry/captive bird owners and keepers in the Protection and Surveillance Zones
15/11/2022	Confirmation of 1 st outbreak of HPAI H5N1 in a poultry (turkey fattening) flock	Killing and destruction of all susceptible birds registered to the establishment	Infected flock
16/11/2022	Confirmation of 1 st outbreak of HPAI H5N1 in a poultry (turkey fattening) flock	Preliminary Cleaning and disinfection of affected establishment	Infected flock

18/11/2021	Suspected avian influenza in a poultry (fattening turkey) flock	Sampling and submission to Veterinary laboratory. Restriction of flock	Suspected premises
19/11/2021	Confirmation of (2 nd) outbreak of H5N1 in a poultry (fattening turkey) flock	Awaiting pathogenicity results	Suspected premises
22/11/2021	Confirmation of (2 nd) outbreak of HPAI H5N1 in a poultry (turkey fattening) flock	Introduction of Restriction zones around infected establishment to include a 3km Protection zone and 10km Surveillance zone	All poultry/captive bird owners and keepers in the Protection and Surveillance Zones
20/11/2022	Confirmation of (2 nd) outbreak of HPAI H5N1 in a poultry (turkey fattening) flock	Killing and destruction of all susceptible birds registered to the establishment	Infected establishment
22/11/2022	Confirmation of (2 nd) outbreak of HPAI H5N1 in a poultry (turkey fattening) flock	Preliminary Cleaning and disinfection of affected establishment	Infected establishment

7.2. Increasing awareness of the stakeholders and the general public

The National Disease Control Centre (NDCC) of the Department of Agriculture, Food and the Marine (DAFM) distributes regular Avian Influenza updates via email to a list of subscribers and publishes them on the Department of Agriculture Food and the Marine's dedicated avian website, to which the general public has access. 8 updates have been issued during the course of this reference period i.e. between 03.09.2022-25.11.2022. These updates can be accessed at the link below:

gov.ie - Avian influenza (bird flu) (www.gov.ie)

Also available at this link is an online interactive map viewer of the location of confirmed cases of avian influenza H5N1 in wild and captive birds in Ireland (courtesy of the Centre for Veterinary Epidemiological Risk Analysis, University College Dublin). In addition, there is also a separate interactive map viewer showing the locations of the Restricted Zones (PZ & SZ). This map has the functionality to allow interested parties to input their location to identify whether it falls within a restricted zone.

Mainstream media interviews, both television and radio, have been conducted by NDCC senior management in disseminating awareness and information in relation to avian influenza during this reference period. Social media campaigns on the platforms of Facebook and Twitter have also been ongoing through this reporting period.

In addition, campaigns highlighting the necessity for increased biosecurity in poultry flocks are running on an online commercial trading website.

7.3. Housing order

Avian Influenza (Precautionary Confinement of Birds) Regulations 2022 were introduced on 7 November 2022. This legislation requires all poultry and captive birds in the Republic of Ireland to be housed in a secure building or where this is not practical, steps are to be taken to confine them so that they are kept separate from wild birds.

This regulation will remain in force until risk assessment considers that withdrawal is appropriate.

7.4. Strengthening biosecurity measures (other than housing order)

Avian Influenza (Biosecurity Measures) Regulations 2022 were brought into force on 19 September, 2022. This regulation can be found in full at the link below:

S.I. No. 462/2022 - Avian Influenza (Biosecurity Measures) Regulations 2022 (irishstatutebook.ie)

An accompanying guidance document for poultry owners regarding the implementation of these measures was published on the Department of Agriculture Food and the Marine's website.

<https://assets.gov.ie/234525/b626de82-06e4-4247-a4a4-7f16fcc9cfb8.pdf>

7.5. Preventive culling

No preventative culling has taken place in the Restriction Zones to date.

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

No regional standstill has been applied.

7.7. Derogations on restriction zone implementation after risk assessment

Following risk assessment of confirmed outbreaks in two separate captive bird flocks containing less than 50 birds each, a decision to derogate on implementation of restriction zones around both of these flocks.

The first of these outbreaks was confirmed on 13 October 2022, in NUTS 3 region IE061. The second outbreak was confirmed on 19 October 2022, in NUTS 3 region IE062. Both outbreaks occurred in coastal areas, where wild birds were earlier confirmed to have been infected with HPAI H5N1. Neither flocks had links to poultry or other poultry premises. There had been no movements of poultry or poultry products from either premises within 21 days prior to the first signs of illness in the birds.

The risk of onward spread from these premises was deemed to be negligible. All remaining birds on site were euthanised and disposed of in accordance with CDR(EU) 2020/687 and Regulation (EC) No 1069/2009.

7.8. Hunting

Hunting continues to be allowed. The release of captive birds is prohibited in restricted zones for the full period of their duration.

8. Italy

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8.1. Timing of the applied prevention and control measures

Table 8 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.

Table 8: Overview of main actions

Date	Event that triggered action	Type of action taken
01/09/2022	Heightened risk of AI introduction	Housing order; enhanced biosecurity measures; periodical virological monitoring plan on laying hen, fattening turkeys and broiler farms; active surveillance plan for HPAI in wild birds
01/10/2022	First outbreak in a poultry holding in a region not affected since January 2022	Extension and amendment of previous ministerial provision of 01/09/2022
20/10/2022	First outbreak in a poultry holding in a region not previously affected	Establishment of a further restricted zone in Lombardia region
21/10/2022	First outbreak in a poultry holding in a province not previously affected in Veneto region	Establishment of a further restricted zone in Veneto region
31/10/2022	Evolving epidemiological situation in Veneto and Lombardia regions	Extension and amendment of previous ministerial provision of 01/10/2022

8.2. Increasing awareness of the stakeholders and the general public

Details on Avian Influenza outbreaks occurred in Italy and updates on the epidemiological situation at the European level are provided regularly through the website of Istituto Zooprofilattico Sperimentale delle Venezie, where the National and European Reference Laboratory for Avian Influenza and

Newcastle Disease has dedicated sections: <https://www.izsvenezie.com/reference-laboratories/avian-influenza-newcastle-disease/italy-update/>; <https://www.izsvenezie.com/reference-laboratories/avian-influenza-newcastle-disease/europe-update/>.

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 positive event is forwarded for information to poultry farmer unions, poultry production companies, and veterinary associations. Updates on the epidemiological situation are also forwarded to the Directorate for Health and Food Safety of the European Commission, and the World Organisation for Animal Health (OIE).

8.3. Housing order

Following the alert raised by EFSA, ECDC and EURL for Avian Influenza and Newcastle Disease with the publication of the monitoring report 'Avian influenza overview March-June 2022' (30/06/2022), and the observed persistence of HPAI (H5) virus in wild birds in EU since the 2021-2022 epidemic, the Italian Ministry of Health issued the Ministerial provision n° 20885 on 01 September 2022. This provision implemented, among other mitigating measures, a housing order in high-risk areas for the introduction and spread of HPAI viruses (as defined to follow up on the provisions of the Implementing Decision (EU) no. 2018/1136). In the areas not at risk, the local competent authority may decide to implement biosecurity measures as strict as a housing order after a risk assessment. The housing order was extended according to the Ministerial provisions n° 452618 of 01 October 2022 and n° 0026147 of 31 October 2022.

8.4. Strengthening biosecurity measures (other than housing order)

In accordance with Ministerial provision n° 20885 of 01 September 2022, enhanced biosecurity measures should be applied in high-risk areas for the introduction and spread of H5/H7 HPAIV, and in particular:

- implementation of proper cleaning and disinfection protocols, in particular for tools and equipment introduced in premises where poultry is kept;
- ban on access of unauthorized personnel to the poultry premises;
- record of movement of vehicles or people entering and leaving the poultry premises;
- correct storage and disposal of carcasses;
- correct storage and disposal of manure;
- correct storage of (clean) litter, which must be adequately covered and protected from any direct and indirect contact with wild birds;
- if the farm uses surface water for watering birds, this must be properly disinfected;
- appropriate disinfection methods should be arranged at the entrance and exit of buildings that house poultry or other captive birds, as well as at the entrance and exit of the poultry farm.

8.5. Preventive culling

Preventive culling, referred to as the killing and disposal of birds in farms considered at risk, was applied in order to reduce the risk of uncontrolled spread of the disease, both in Veneto and Lombardy regions.

Criteria used to decide which holdings should be depopulated were: (i) proximity to infected farms (within the 3-km radius); (ii) potential direct or indirect contacts (sharing of personnel, sharing of vehicles, farms belonging to the same owner, farms belonging to familiars of the owner). The precise details on the timeframe of culling and productive types are reported in the related Provisions of the local competent authority.

8.6. Derogations on restriction zone implementation after risk assessment

After carrying out a risk assessment for the further spread of HPAI in the area surrounding the outbreak, the competent authority decided to grant a derogation according to Art. 21 paragraph 3 point (a) of the EU Delegated Regulation 2020/687 and did not establish a restricted zone around a multispecies holding located in Treviso (Veneto region), which was housing laying hens, birds of the family Psittacidae and swans and was found positive for HPAI H5N1 virus.

8.7. Establishment of Further Restricted Zone

In view of the epidemiological situation, and taking into consideration the location of the HPAI A(H5N1) outbreaks (within the densely populated poultry area DPPA), the Veterinary Competent Authority of Veneto and Lombardia regions issued a provision to establish a Further Restricted Zone (FRZ) to prevent the further spread of the infection. Restocking of fattening turkeys in the FRZ is forbidden until the 30 November 2022.

8.8. Additional preventive and mitigation measures

In accordance with Ministerial provision n° 20885 of 01 September 2022, as amended, additional preventive and mitigation measures have been established:

- Early detection is implemented throughout the poultry sector: significant productive or sanitary changes observed in holdings must be reported immediately to the Veterinary Services, such as decrease in feed and/or water consumption, decreased production of eggs, clinical symptoms, increased mortality rate;
- A strict monitoring plan is foreseen on a sample basis in high risk areas of Veneto, Lombardia and Emilia-Romagna, on a weekly basis in broiler of age between 37 and 44 days, and fortnightly in fattening turkey older than 50 days and in pullets and laying hen older than 28 days, as to ensure the identification of at least one infected poultry holding where the prevalence of infected poultry holdings is at least 3%, with a 95% confidence interval;
- The use of live decoy birds belonging to the orders *Anseriformes* and *Charadriiformes* for hunting can be allowed by the local veterinary authority provided an active surveillance plan for AI in wild birds is in place (sampling for virological testing) and will be suspended once there is evidence of HPAI virus circulation on the Italian national territory;
- Restocking of fattening turkeys in Veneto and Lombardia regions, given a favourable epidemiological situation, is only allowed if synchronous times (within 2 weeks) of housing and emptying for slaughtering in all farms within a district is observed.

9. Norway

Siri Løtvedt

9.1. Timing of the applied prevention and control measures

Table 9 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.

Table 9: Overview of main actions

Date	Event that triggered action	Type of action taken
21/10/2022	Outbreak in holding with layers of hatching eggs	Stamping out, Traceability, Disease notification, Disinfection, Official disposal of carcasses and hatching eggs from the affected holding.

		Zoning, surveillance, movement ban on live birds, products and byproducts from birds, housing order, hunting ban, enhanced biosecurity routines etc. applied in the 3 and 10 km zones. An infected zone including a housing order applied in 15 municipalities around the outbreak.
25/10/2022	Preventive culling of nearby hobby flock	A small hobby flock of 26 poultry belonging to a kindergarten situated appr. 150 meters from the outbreak holding, was euthanized. Tests taken from the flock were negative.
11/11/2022	Outbreak in holding with layers of eggs for human consumption	Stamping out, Traceability, Disease notification, Disinfection, Official disposal of carcasses and eggs for human consumption from the affected holding. Zoning, surveillance, movement ban on live birds, products and byproducts from birds, housing order, hunting ban, enhanced biosecurity routines etc. applied in the 3 and 10 km zones. The holding was situated in the infected zone already established around the outbreak in October.

9.2. Increasing awareness of the stakeholders and the general public

Information on the NFSA's webpages to the poultry industry, hobby farmers and the public.

Link to our web pages: Fugleinfluenza | Mattilsynet

Frequent Teams meetings with poultry industry organizations, poultry holders and hobby holders' organizations centrally and locally. Later, meetings when necessary, but at least twice a week.

SMS-notification to all registered poultry holders and hobby holders in the 3 km and 10 km zones, with short information and showing them to the webpages.

Press releases and interviews were given in national and local media.

Several posts have been published on social media, specially aimed at the hobby farmers in the zone.

9.3. Housing order

An infected zone which included a housing order was applied in 15 municipalities around the outbreak holding on the 22nd October.

The decision was based on risk assessment performed by the Norwegian Veterinary Institute, taking into account the density and total activity of poultry production in the area and the presence of wetlands with gatherings of wild birds.

The housing order applies to kept poultry and non-poultry birds. Birds shall be kept in-doors or fenced and under tight roof, so that they can't get in contact with wild birds. Hobby flocks with less than 50 birds could instead have a roof made of net.

The outbreak holding in November was situated inside the already established infected zone.

The duration of the housing order will be evaluated after the restriction zones have been lifted.

The regulation defining the infected zone for kept birds is published here: <https://lovdata.no/forskrift/2022-06-23-1161>

9.4. Strengthening biosecurity measures (other than housing order)

Information was put on our webpages on biosecurity measures for commercial holdings, hobby holdings, hunters, animal transporters, the public etc., informing them on biosecurity measures inside the restriction zones.

Meetings with local farmers and inspections of holdings in the zones were carried out.

Strengthened biosecurity measures were also applied in the regulation on the infected zone: "Housing order regulation" published here: <https://lovdata.no/forskrift/2022-06-23-1161>

9.5. Preventive culling

A small hobby flock of 26 poultry belonging to a kindergarten situated only appr. 150 meters from the outbreak holding, was euthanized. The decision was based on a risk assessment from the Norwegian Veterinary Institute. Tests taken from the flock were negative.

No preventing culling was applied in connection with the November outbreak.

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

Not applied.

There was an outbreak of Newcastle disease in the same area in October, and the HPAI outbreak holding was in the surveillance zone for the ND outbreak where movements of poultry and products only were allowed when a permission was granted.

9.7. Derogations on restriction zone implementation after risk assessment

The restriction zones were implemented with the standard measures from the Commission delegated regulation (EU) 2020/687.

Permissions on certain conditions were granted from the measures when possible in accordance with the regulation and after a risk assessment in each case, for certain transports.

Information on the prohibitions and the possibility to apply for permissions is available here: Dette betyr sonene rundt utbrudd av fugleinfluenza i Rogaland | Mattilsynet

9.8. Hunting

A hunting ban was implemented in the restriction zones and the infected zone in 15 municipalities based on a risk assessment by the Norwegian Veterinary Institute. The duration of the hunting ban will be evaluated after the zones have been lifted.

The hunting ban doesn't apply to hunting of hens of the forest, like grouse, outside the wetlands.

10. Moldova

Vitalie Caraus

National Agency for Food Safety

10.1. Timing of the applied prevention and control measures

Table 10 provides a timeline of 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.

Table 10: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience
12.11.2022	The fourth outbreak of Avian Influenza in Republic of Moldova was recorded in domestic birds in Telenesti district, Hiriseni village.	An epidemiological investigation was carried out. Quarantine measures have been put in place and a protection zone and a surveillance zone have been established. The Exceptional Anti-Epizootic Commission (CAE) of Telenesti district was convened and approved a Plan of measures to combat and eradicate this outbreak, according to the provisions of Government Decision no. 939 of 04.08.2008 for the approval of the Sanitary-Veterinary Norm regarding the measures for	poultry associations, general public

		<p>surveillance, control and control of avian influenza, Order no. 74 of 12.02.2018 of the National Agency for Food Safety, regarding the Contingency Plan and the Operational Manual for avian influenza control. Immediately after the decisions taken by the CAE of Falesti district, in the Albinetul Vechi village, 3 filters were installed in order to prevent the removal of birds from the outbreak.</p> <p>The measure of total depopulation of the birds from the affected backyard was applied, and the owner will be compensated, according to the Government Decision no. 645/2010 for the approval of the Regulation on the method of calculating the compensations granted to the owners of animals slaughtered, killed or otherwise affected following the rapid liquidation of outbreaks of communicable animal diseases.</p> <p>Was carried out the census of animals and birds in the Hirişen village and lists of the approximate number of birds and animals in the area were made.</p>	
14.11.2022	Disease notification submitted to ADIS.	The notification were submitted by the National Food Safety Agency.	

10.2. Increasing awareness of the stakeholders and the general public

Both during epidemiological silence and during periods of disease progression, the competent central veterinary authority and the territorial subdivisions inform and raise awareness among farmers and the public by:

- press releases on the situation of major diseases in Europe, in neighboring countries and in the world;
- displaying in public places informative material regarding the most probable diseases to evolve in the territory;
- printing information leaflets and disseminating them among farmers, the population and local town halls;
- ads in the media;
- public information sessions for intensive publicity to exacerbate the disease.

ANSA provides in the annual budget funds for the printing of informative materials.

In the event of a risk of AI in the country, in neighboring countries, ANSA works with the print media, local radio and television stations to initiate programs to explain to the public what aspects should be followed in the evolution of the health of birds, in order to notification of suspicions as soon as possible. On the day the disease was confirmed, an article was published on the NFSA website:

<https://www.ansa.gov.md/ro/comunicate/un-nou-caz-de-grip%C4%83-aviar%C4%83-fost-confirmat-%C3%AEn-satul-hiri%C8%99eni-raionul-telene%C8%99ti>

The police car was going through the village while distributing a vocal message about bird flu and spreading awareness.

<https://www.ansa.gov.md/ro/comunicate/recomand%C4%83m-popula%C8%9Biei-s%C4%83-%C8%9Bin%C4%83-%C3%AEnchiese-p%C4%83s%C4%83rile-%C3%AEn-proprie-gospod%C4%83rii-pe-perioada>

https://ansa.gov.md/uploads/files/Materiale%20informative%20educative/Buclet_Ansa.pdf

<https://www.ansa.gov.md/uploads/files/Sanitar-Veterinar/MANUALE/MD%20AI%20%20LUCRU.pdf>

<https://ecopresa.md/un-nou-caz-de-gripa-aviara-a-fost-confirmat-in-republica-moldova/>

<https://tvrmdova.md/article/dc2af1fc940da881/un-nou-caz-de-gripa-aviara-confirmat-in-raionul-telenesti.html>

Also, on the 27 and 28 of October, in Chisinau was organised a tabletop simulation exercise on Avian Influenza with two experts from the National Sanitary Veterinary and Food Safety Authority of Romania.

<https://www.woah.org/en/simulation-exercise/simulation-exercise-avian-influenza-in-moldova/>

10.3. Housing order

The outbreaks of highly pathogenic avian influenza H5N1 in domestic birds in Telenesti district, Hirişeni village were notified on 12.11. 2022.

By decision of the Exceptional Anti-epizootic Commission of Telenesti district, a protection zone with a radius of at least 3 km was established around the infected backyards (outbreak), which is included in a surveillance zone with a radius of at least 10 km from outbreak.

In the protection zone are included the following villages: Hiriseni, Codru, Budai, Telenesti, Hirova, Calarasi.

In the surveillance zone are included the following villages: Mindresti, Cislă, Ciulucani, Ghiliceni, Cucioaia, Telenesti, Crasnaseni, inesti, Leuseni, Vasieni, Bogzesti, Zgardesti, Tibirica, Raciula, Hoginesti, Radeni, Dereneu, Oniscani, Sverida, Balarda, Meleseni, Calarasi, Cornova, Napadeni, Ungheni.

When establishing these areas, the geographical, administrative, ecological and epidemiological factors related to AI and the possibilities of monitoring the existing epidemiological situation were taken into account.

Measures to eradicate the outbreak of AI, measures established in the protection zone and in the surveillance zone are carried out.

10.4. Strengthening biosecurity measures (other than the housing order)

Outbreak of avian influenza have been reported in one backyard in Hiriseni.

The population is informed about the most critical moments of the Avian influenza outbreak, especially during the migration of wild birds.

In order to prevent the occurrence of avian influenza, breeders and owners of poultry (households) are informed and obliged to take a series of biosecurity measures to prevent the transmission and spread of avian influenza virus.

10.5. Preventive culling

All the birds in the affected backyard were destroyed. Were found 29 dead chickens.

19 chickens were killed.

The killed birds, following the eradication of the outbreak, were buried in conditions of maximum security with an environmental permit from the Local Agency for Environmental Protection

10.6. Derogations on restriction zone implementation after risk assessment

Following an assessment of the level of risk to avian influenza, derogations regarding the establishment of protection and surveillance zones and the measures to be applied in these zones were not granted.

10.7. Hunting

The rules, terms and methods of hunting are established in Law no. 439 from April 27, 1995 to the 'Animal Kingdom'. In the spring–summer period, hunting is prohibited for all animal species, except foxes, where hunting is allowed throughout the year.

The Government of the Republic of Moldova annually approves by a Government decision the hunting deadlines and the conduct of hunting in the hunting season.

11. The Netherlands

Marcel Spierenburg

Netherlands Food and Consumer Product Safety Authority (NVWA)

11.1. Timing of the applied prevention and control measures

Table 11 provides a timeline of 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.

Table 11: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience
26/10/2021	First outbreak HPAI serotype H5N1 positive commercial poultry holding (organic laying hens)	<p>Measurements for the protection and surveillance zone:</p> <p>As of 26th of October 2021: Culling HPAI positive commercial poultry holding, implement protection (3km) zones and surveillance (10km) zones around HPAI positive commercial poultry holding with transport restrictions for all birds inclusive commercial poultry and poultry products, sperm, manure and feed as well transport restrictions for domestic mammals, feed, sperm, milk and manure of these domestic mammals. Ban hunting ducks or to hunt in general in wet areas with waterfowl</p> <p>Measurements for the whole country:</p> <p>As of 26th of October 2021:</p> <p>1: housing order commercial poultry confinement and housing order hobby birds and other non commercial captive birds confinement.</p> <p>2: Measures regarding cover and application of litter on duck holdings.</p> <p>3: ban for visit commercial poultry holdings and other holdings or locations where birds are held. 4: mandatory visitors registration, 5: ban races and exhibitions with birds, 6: ban hunting ducks or to hunt in general in wet areas with waterfowl 7: mandatory clinical examination of birds for transport to or from commercial poultry holdings 8: mandatory intensive clinical examination ante mortem of ducks and turkeys at slaughterhouses, 9: using a hygiene protocol for visiting of commercial poultry holdings, 9: Increasing awareness, repeal housing order (commercial poultry confinement), strengthening biosecurity, intensified wild bird monitoring</p>	e.g. poultry associations, general public, etc.
29/10/2021	First HPAI positive captive bird outbreak HPAI serotype H5N1. on a non poultry hobby farm.	Measurements for the whole country: same as above	
30/10/2021	Second outbreak HPAI serotype H5N1 positive commercial poultry holding (Broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above.	
01/11/2021	Third outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
03/11/2021	Second HPAI positive captive bird outbreak HPAI serotype H5N1. on a non poultry hobbyfarm	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
04/11/2021	Fourth outbreak HPAI serotype H5N1 positive commercial poultry holding (Fattening ducks)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
05/11/2021	First HPAI positive wild bird finding On Oktober 22th, 1 Greylag Goose (Anser anser) was found dead in a wetland area. On November 5th the national reference	Measurements for the whole country: same as above	

	laboratory confirmed HPAI Virus H5N1 in the samples from the Goose.		
05/11/2021	Fifth outbreak HPAI serotype H5N1 positive commercial poultry holding (Fattening ducks)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
05/11/2021	Third HPAI positive captive bird outbreak HPAI serotype H5N1. on a non poultry hobbyfarm	Measurements for the whole country: same as above	
08/11/2021	Sixth outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
13/11/2021	Fourth HPAI positive captive bird outbreak HPAI serotype H5N1. on a non poultry hobbyfarm	Measurements for the whole country: same as above	
14/11/2021	Seventh outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
21/11/2021	Eighth outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
01/12/2021	Till this date together 49 HPAI H5N1 positive wild bird notifications to ADIS	Measurements for the whole country: same as above	
17/12/2021	9th outbreak HPAI serotype H5N1 positive commercial poultry holding (broilers)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
21/12/2021	10th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening turkeys)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
4/1/2022	11th outbreak HPAI serotype H5N1 positive commercial poultry holding (broilers)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
5/1/2022	12th outbreak HPAI serotype H5N1 positive commercial poultry holding (rearing laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
13/1/2022	5th HPAI positive captive bird outbreak HPAI serotype H5N1. on a non poultry hobbyfarm	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
22/1/2022	13th outbreak HPAI serotype H5N1 positive commercial poultry holding (organic laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
24/1/2022	14th outbreak HPAI serotype H5N1 positive commercial poultry holding (broilers)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above (This farm was culled before on 30/10/21, 2 nd outbreak HPAI H5N1)	
24/1/2022	15th outbreak HPAI serotype H5N1 positive commercial poultry holding (broilers)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
24/1/2022	16th outbreak HPAI serotype H5N1 positive commercial poultry holding (parentbreedingduck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	

30/1/2022	17th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
1/2/2022	18th outbreak HPAI serotype H5N1 positive commercial poultry holding (rearing laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
2/2/2022	19th outbreak HPAI serotype H5N1 positive commercial poultry holding (grand parent breeding poultry)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
3/2/2022	20th outbreak HPAI serotype H5N1 positive commercial poultry holding (Parent breeding duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
4/2/2022	21th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
8/2/2022	22th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
8/2/2022	23th outbreak HPAI serotype H5N1 positive commercial poultry holding (organic laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
14/2/2022	24th outbreak HPAI serotype H5N1 positive commercial poultry holding (free range laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
15/2/2022	25th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
17/2/2022	Till this date together 220 HPAI H5N1 positive wild bird notifications to ADIS	Measurements for the whole country: same as above	
20/2/2022	26th outbreak HPAI serotype H5N1 positive commercial poultry holding (Turkey)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
24/2/2022	27th outbreak HPAI serotype H5N1 positive commercial poultry holding (Rearing laying hen))	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
27/2/2022	28th outbreak HPAI serotype H5N1 positive commercial poultry holding (Turkey)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
28/2/2022	29th outbreak HPAI serotype H5N1 positive commercial poultry holding (Broilers)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
28/2/2022	30th outbreak HPAI serotype H5N1 positive commercial poultry holding (parent breeding poultry)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
2/3/2022	31th outbreak HPAI serotype H5N1 positive commercial poultry holding (broilers)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	

3/3/2022	32th outbreak HPAI serotype H5N1 positive commercial poultry holding (turkey)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
6/3/2022	33th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying and rearing laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
10/3/2022	34th outbreak HPAI serotype H5N1 positive commercial poultry holding (organic laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
13/4/2022	35th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
16/4/2022	36th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
20/4/2022	37th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
20/4/2022	38th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
20/4/2022	39th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
21/4/2022	40th outbreak HPAI serotype H5N1 positive commercial poultry holding (breeding poultry)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
21/4/2022	41th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
24/4/2022	42th outbreak HPAI serotype H5N1 positive commercial poultry holding (breeding parent broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
25/4/2022	43th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
28/4/2022	44th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying and rearing laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
3/5/2022	45th outbreak HPAI serotype H5N1 positive commercial poultry holding (rearing laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
31/5/2022	Till this date together 380 HPAI H5N1 positive wild bird notifications to ADIS 2022	Measurements for the whole country: same as above	
7/6/2022	46th outbreak HPAI serotype H5N1 positive commercial poultry holding (breeding parent duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	

9/6/2022	47th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
9/6/2022	48th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
15/6/2022	49th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening duck and laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
17/6/2022	50th outbreak HPAI serotype H5N1 positive commercial poultry holding (organic laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
26/7/2022	51th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
27/7/2022	52th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
31/7/2022	53th outbreak HPAI serotype H5N1 positive commercial poultry holding (breeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
1/8/2022	54th outbreak HPAI serotype H5N1 positive commercial poultry holding (organic laying hen))	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	Totally culled infected birds till 5/8/2022 3.020.852 birds Preventively culled: 932.000 birds
1/8/2022	Till this date together 542 HPAI H5N1 positive wild bird notifications to ADIS 2022	Measurements for the whole country: same as above	Till 1/8/2022 667 HPAI H5N1 positive wild bird notifications to ADIS start 26/10/2021
14/8/2022	55th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
16/8/2022	56th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
17/8/2022	57th outbreak HPAI serotype H5N1 positive commercial poultry holding (grandparent breeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
18/8/2022	58th outbreak HPAI serotype H5N1 positive commercial poultry holding (parent breeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
01/09/2022	59th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
01/09/2022	60th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	

02/09/2022	61th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
06/09/2022	62th outbreak HPAI serotype H5N1 positive commercial poultry holding (chickens)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
09/09/2022	63th outbreak HPAI serotype H5N1 positive commercial poultry holding (parent breeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
16/09/2022	64th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
18/09/2022	65th outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening duck and broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
18/09/2022	66th outbreak HPAI serotype H5N1 positive commercial poultry holding (parent breeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
26/09/2022	67th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
29/09/2022	68th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
29/09/2022	69th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
02/10/2022	70th outbreak HPAI serotype H5N1 positive commercial poultry holding (parent breeding duck)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
03/10/2022	71th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
05/10/2022	72th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
07/10/2022	73th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
09/10/2022	74th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
11/10/2022	75th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
13/10/2022	76th outbreak HPAI serotype H5N1 positive commercial poultry holding (parent breeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	

14/10/2022	77th outbreak HPAI serotype H5N1 positive commercial poultry holding (broiler)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
16/10/2022	78th outbreak HPAI serotype H5N1 positive commercial poultry holding (turkey)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
20/10/2022	79th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
20/10/2022	80th outbreak HPAI serotype H5N1 positive commercial poultry holding (laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
22/10/2022	81th outbreak HPAI serotype H5N1 positive commercial poultry holding (turkey)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
27/10/2022	82th outbreak HPAI serotype H5N1 positive commercial poultry holding (parent breeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
30/10/2022	83th outbreak HPAI serotype H5N1 positive commercial poultry holding (grandparentbreeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
31/10/2022	84th outbreak HPAI serotype H5N1 positive commercial poultry holding (rearing laying hen)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	
09/11/2022	85th outbreak HPAI serotype H5N1 positive commercial poultry holding (parent breeding)	Measurements for protection and surveillance zone: same as above. Measurements for the whole country: same as above	

11.2. Increasing awareness of the stakeholders and the general public

Development of biosecurity measures during the crisis in contact with the poultry sector. Communication both by the Ministry and the poultry sector as follows: directly published on the government website (www.rijksoverheid.nl); legal information/information to parliament/information for press/questions and answers/phone centre for questions from both poultry owners and general public, in direct contact with poultry advisers/communication department in close contact with press/meeting for all stakeholders and communication by media with the general public.

11.3. Housing order

The housing order was implemented in mandatory national legislation from 26 October 2021 after an executed risk assessment by the Commission from animal disease experts who considered this matter. This Commission advised the Chief Veterinary Officer and the Minister to introduce measures against HPAI. The trigger of implementing the housing order was the HPAI H5N1 positive outbreak on a commercial poultry holding (organic laying hens) as 26 October 2021.

11.4. Strengthening biosecurity measures (other than the housing orders)

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

11.5. Preventive culling

It was applied in the tenth outbreak HPAI serotype H5N1 positive commercial poultry holding (fattening turkey holding) as 21st of December 2021, there was after tracing investigation two other commercial poultry holding considered as high risk contact (fattening turkey farms of same owner) which was preventively culled. After that till 18th of November 2022 totally 42 poultry holdings have been culled preventively in the 1 km area or as contact holding. All preventive culled poultry farms were sampled and tested PCR negative for HPAI.

11.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

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

11.7. Derogations on restriction zone implementation after risk assessment

No.

11.8. Hunting

There was a ban implemented on hunting ducks or on hunting in general in wet areas with waterfowl.

12. Poland

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12.1. Timing of the applied prevention and control measures

Table 12 provides a timeline of 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.

Table 12: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience
September - November		HPAI educational meetings in all voivodeships in Poland	Poultry associations, farmers, general public, veterinary inspection and official vets
September - November		Regular updating information about HPAI epizootic situation on the website	GVI
September – November		Weekly organization of working groups in the Ministry of Agriculture and Rural Development	Internal meetings of GVI and MARD
16.09.2022		Self-declaration for the recovery of country freedom from infection with HPAI viruses was sent to WOA	
22.09.2022	Confirmation of new HPAI outbreak in poultry	Culling of all birds at the infected holding. Establishment of a protection and surveillance zone of 3 and 10 km around the holding and implementation of the necessary measures in	

		accordance with Commission Delegated Regulation (EU) 2020/687	
22.09.2022	Confirmation of new HPAI outbreak in poultry	Commissioning NRL to perform WGS tests for outbreak	NRL
26.09.2022		CVO ordered to review and replenishment of epizootic storage facilities necessary for the implementation of tasks in connection with the possible occurrence of avian influenza,	GVI, DVI, RVI
31.10.2022	Confirmation of new HPAI outbreak in poultry	CVO ordered to intensify monitoring in wild birds.	
27.10.2022		Letter to District Veterinary Administrations – continuation of control (biosecurity) of poultry holdings	GVI, DVI, RVI

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.

12.2. Increasing awareness of the stakeholders and the general public

Information published on the website of the General Veterinary Inspectorate: <https://www.wetgiw.gov.pl/nadzor-weterynaryjny/grypa-ptakow>

The local veterinary authorities organised trainings for poultry farmers, disseminated leaflets and posters about the dangers related to HPAI.

HPAI educational meetings were organised in following voivodeships: Wielkopolskie, Pomorskie, Podkarpackie, Mazowieckie, Warmińsko-Mazurskie, Zachodnio Pomorskie, Podlaskie, Opolskie, Kujawsko-Pomorskie, Małopolskie, Dolnośląskie, Śląskie, Lubelskie, Świętokrzyskie, Lubuskie, Łódzkie – all the country.

12.3. Housing order

The Regulation of the Minister of Agriculture and Rural Development of 31 March 2022 regarding the ordinance of measures related to the occurrence of highly pathogenic avian influenza introduces into the territory of the Republic of Poland, among others orders to keep poultry (except ducks and geese) isolated from wild birds.

12.4. Strengthening biosecurity measures (other than the housing orders)

Orders and prohibitions for poultry breeders and keepers in protection and surveillance zones designated around HPAI outbreaks are set out in the Regulation of the Commission Delegated Regulation (EU) 2020/687 of 17 December 2019 supplementing Regulation (EU) 2016/429 of the European Parliament and the Council, as regards rules for the prevention and control of certain listed diseases.

The Regulation of the Minister of Agriculture and Rural Development of 31 March 2022 regarding the ordinance of measures related to the occurrence of highly pathogenic avian influenza sets out biosecurity measures for poultry breeders and keepers.

In addition, information on avian influenza is available on the website of the Chief Veterinary Officer (link: <https://www.wetgiw.gov.pl/nadzor-weterynaryjny/grypa-ptakow>), including a description of biosecurity rules (<https://www.wetgiw.gov.pl/nadzor-weterynaryjny/zasady-ochrony-drobieu-przed-grypa-ptakow>)

Intensified controls on biosecurity measures in poultry farms are currently carried on, since September 2022 to 25 October 2022 Veterinary Inspection carried out 1 145 controls in commercial holdings and 1 059 controls in non-commercial holdings.

12.5. Preventive culling

In the period covered by the report preventing culling was not applied

12.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

In the period covered by the report a regional standstill was not applied.

12.7. Derogations on restriction zone implementation after risk assessment

In the period covered by the report no derogations on measures were granted.

12.8. Hunting

Local veterinary authorities established a cooperation with hunting clubs to collect samples from shot wild birds, mainly in the surveillance and protection areas.

13. Portugal

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13.1. Timing of the applied prevention and control measures

Table 8 provides a timeline of 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.

Table 13: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience
30/09/2022	Confirmation of infection by HPAI virus H5N1 in a fattening turkeys establishment	Publication of an Edict containing information regarding detected outbreaks, the definition of restriction zones and measures implemented within restriction zones.	Poultry keepers, including hobby and backyard flocks, and general public
		Measures taken at infected holdings: Quarantine and epidemiological enquiry; Stamping out; Disposal of carcasses, by-products (manure) and waste; Cleaning and disinfection; Traceability – products, by-products, contact holdings; Repopulation under official control.	
		Measures taken within restriction zones: • Inventory of all poultry holdings; • All holdings were visited by official veterinarians for clinical examination of the poultry and other captive birds. Sampling for laboratory testing for HPAI virus within protection zone and, if necessary, within surveillance zone; • Poultry keepers must immediately report any increased morbidity or mortality or significant drop in production data in order to allow timely and appropriate investigations by DGAV; • Movement restrictions and prohibitions: - No poultry or other captive birds as well as eggs, for incubation or consumption, may enter	

		or leave a holding without authorisation granted by DGAV; - Removal or spreading of used litter, manure or slurry from holdings is prohibited. Removal of manure and used litter may be carried out when authorised by DGAV; - Transport of poultry meat from slaughterhouses, cutting plants and cold stores is prohibited unless authorised by DGAV; - Fairs, markets, shows or other gatherings of poultry or other captive birds are prohibited. - Release of poultry for game birds restocking is prohibited. • Reinforced biosecurity measures: - Preventing contacts with wild birds; - Entrance of staff and visitors only when strictly necessary; - Records of each visit must be kept; - All staff and visitors entering or leaving poultry holdings must strictly follow disinfection procedures; - All parts of vehicles entering or leaving poultry holdings must be cleaned and disinfected; - Dead birds (normal daily mortality) must be promptly disposed according to Regulation (EC) n° 1069/2009; - All vehicles and equipment used for transporting live poultry or other captive birds, meat, feed, manure, slurry and bedding and any other material or substances likely to be contaminated are cleaned and disinfected after each transport and allowed to completely dry before any subsequent use.	
		Notification to European Commission, ADIS and WAHIS	Member-States and other countries
		Official letters informing of outbreak confirmation are sent to several entities.	Ministry of Agriculture; Ministry of Health; Institute for Nature Conservation and Forests; Police and Republican National Guard; Veterinary Chambers.
		Official letters informing of outbreak confirmation and of biosecurity measures to be applied are sent to the Sector.	Poultry sector associations; Municipal and parishes authorities.

13.2. Increasing awareness of the stakeholders and the general public

Since detection of the first HPAI outbreak, all edicts and press releases have been regularly published on the website of DGAV. This website includes a page dedicated to avian influenza, regularly updated, containing information regarding HPAI outbreaks in Portugal and in the EU as well as biosecurity recommendations. This webpage can be accessed at <https://www.dgav.pt/animais/conteudo/animais-de-producao/aves-de-capoeira/saude-animal/doencas-das-aves/gripe-aviaria/>.

A technical note including all relevant information regarding HPAI outbreaks was also published and is also regularly updated. It can be accessed at

https://www.dgav.pt/wp-content/uploads/2022/01/PT_TechnicalNoteHPAI.pdf.

Online awareness sessions for stakeholders, including poultry production, zoos and wildlife rescue centres, regarding early detection and notification as well as biosecurity measures, were also carried out.

13.3. Housing order

Currently, there is no housing order.

13.4. Strengthening biosecurity measures (other than the housing orders)

Poultry and captive birds stakeholders were sent official letters informing them of each outbreak detection and that also included biosecurity recommendations.

13.5. Preventive culling

Not applied.

13.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

Not applied.

13.7. Derogations on restriction zone implementation after risk assessment

Not applied.

13.8. Hunting

No hunting restrictions were applied but official letters were sent to hunting associations to increase awareness regarding HPAI, namely biosecurity measures to be applied when contacting with wild birds and notification of disease suspicions in wild birds.

14. Spain

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14.1. Timing of the applied prevention and control measures

Table 1 provides a timeline of 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.

Table 14: Overview of the main actions

Date	Event that triggered action	Type of action taken	Target audience
From 04/01/2022-maintained until now	From the first outbreak in wild birds in Lleida (Cataluña)	Enhancement of communication and awareness campaigns on situation, biosecurity and passive surveillance in domestic and wild birds.	Regional OVS Other central Ministries units Poultry production and hunter associations. Environmental police (SEPRONA) General public
September 2022	Detection of 2 domestic outbreaks in Guadalajara affecting to 2 laying hen holdings.	Special biosecurity protocols and logistical slaughtering in coordination with particular operators in charge of affected farms.	OVS and stakeholders in the clustered zones.

14.2. Increasing awareness of the stakeholders and the general public

Publication of event reports in the website (RASVE News):

<https://www.mapa.gob.es/es/ganaderia/temas/sanidad-animal-higiene-ganadera/sanidad-animal/default.aspx>

Regularly updated report on avian influenza situation in the world with special emphasis on EU and Spain:

https://www.mapa.gob.es/es/ganaderia/temas/sanidad-animal-higiene-ganadera/informeia_2022-02-28_tcm30-584890.pdf

Wild bird's surveillance guide included in the event reports to enhance passive surveillance in wild populations:

https://www.mapa.gob.es/es/ganaderia/temas/sanidad-animal-higiene-ganadera/guiavigilanciasanitariafaunasilvestre_tcm30-511596.PDF

14.3. Housing order

At risk zones defined based on different risk factors such as water lands, migratory birds resting areas, poultry density and outdoor flock's density. The zones have been updated in August 2022.

The housing order (poultry confinement) is activated in pre-defined zones of special risk and zones of special surveillance (Annex II and III of the Orden APA/2442/2006) according to the risk: ban on bird's concentrations and outdoor activities and enclosure of birds including commercial and no-commercial flocks. The objective is to avoid contact between wild and domestic birds in at risk areas.

The Orden includes a flexibility component by which regional authorities may apply the measure in areas beyond the pre-defined areas;

Guidance on confinement aimed at stakeholders

https://www.mapa.gob.es/es/ganaderia/temas/sanidad-animal-higiene-ganadera/planconfinamientoybsgaves_feb_2017_tcm30-377299.pdf

14.4. Strengthening biosecurity measures (other than the housing orders)

Increasing awareness on biosecurity by regular reports and publication of situation-report in the website.

Publication of event reports in the website (RASVE News):

<https://www.mapa.gob.es/es/ganaderia/temas/sanidad-animal-higiene-ganadera/sanidad-animal/default.aspx>

Regularly updated report on avian influenza situation in the world with special emphasis on EU and Spain:

https://www.mapa.gob.es/es/ganaderia/temas/sanidad-animal-higiene-ganadera/informeia_2022-05-18_tcm30-584890.pdf

Wild bird's surveillance guide included in the event reports to enhance passive surveillance in wild populations:

https://www.mapa.gob.es/es/ganaderia/temas/sanidad-animal-higiene-ganadera/guiavigilanciasanitariafaunasilvestre_tcm30-511596.PDF

14.5. Preventive culling

Not applicable this period.

14.6. Regional standstill (beyond the restriction zones specified in the EU regulation)

In Spain regional stand still has not been applied so far.

14.7. Derogations on restriction zone implementation after risk assessment

Derogation only authorised under EU regulation. In Spain there has not been significant exceptional authorisations in this regard.

14.8. Hunting

Activation of the housing order (poultry confinement) in pre-defined zones of special risk and zones of special surveillance (Annexes II and III of the Order APA/2442/2006).

This order includes a ban on bird concentrations and outdoor activities, including hunting with decoy birds.

The objective is to avoid contact between wild and domestic birds in at-risk areas.

Abbreviations

ADIS	Animal Diseases Information System
AI	Avian influenza
AVO	Authorised veterinary organisation
CVA	Competent veterinary authority
CVO	Chief Veterinary Officer
DVFA	Danish Veterinary and Food Administration
EEA	European Economic Area
EFSA	European Food Safety Authority
FRZ	Further restricted zone
HPAI	Highly pathogenic avian influenza
MARD	Ministry of Agriculture and Rural Development
NRL	National reference laboratory
NVPPA	National Veterinary and Plant Protection Authority
PCR	Polymerase chain reaction
RA	Risk assessment
RVO	Regional veterinary officer
SVFA	State Veterinary and Food Administration
WGS	Whole genome sequencing