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The surveillance programme for avian influenza (AI) in poultry in Norway 2025

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Content

Summary

The reported surveillance is part of Norway's contribution to the European Union Surveillance Programme for avian influenza and describes active surveillance of poultry. Active surveillance based on serological investigations to monitor avian influenza viruses (AIVs) in poultry in 2025 did not detect infection in poultry kept for commercial purposes in Norway. This surveillance is routinely and systematically conducted, independent of the health status of the flocks. One outbreak of highly pathogenic avian influenza (HPAI) was detected in domestic birds in 2025 at a commercial poultry holding with 7,500 laying hens. The outbreak was identified through passive surveillance following sampling initiated due to clinical suspicion.

Introduction

In Norway, active surveillance for avian influenza (AI) in poultry establishments, based on serological investigations of poultry, has been conducted since 2006. The surveillance is part of the European Union Surveillance Programme for avian influenza and conducted in accordance with Commission Delegated Regulation (EU) 2020/689 (1). HPAI and infections with low pathogenic avian influenza viruses (LPAIVs) subtypes H5 and H7 in poultry are classified as list 1 diseases in Norway and Category A in the EU and are notifiable to the World Organisation for Animal Health (WOAH). The Norwegian Food Safety Authority is responsible for the surveillance programme and participate in sampling, while the Norwegian Veterinary Institute manages the planning, laboratory analyses, and parts of the reporting activities.

Avian influenza is a highly contagious disease that affects poultry and other birds. It is caused by infection with numerous subtypes and strains of influenza A viruses. Current knowledge indicates that the health risks associated with LPAIVs are generally lower than those posed by highly pathogenic avian influenza viruses (HPAIVs). While the majority of LPAIV infections typically result in mild disease in poultry, HPAIVs can cause severe illness, often leading to mortality rates exceeding 90% (2).

While domestic poultry populations in Europe generally are free from AIVs, wild waterfowl serve as the primary reservoir for LPAIVs. Infected waterfowl can shed large amounts of the virus upon infection (2). Transmission of LPAIVs from the wild bird reservoir to poultry can occur without poultry demonstrating visible clinical signs. Rarely, LPAIVs may mutate to HPAIVs in this context.

Aims

The surveillance programme aims to detect HPAI in poultry species that do not typically exhibit significant clinical signs, and to detect LPAIVs that may spread between poultry flocks, particularly in areas with high densities of poultry establishments. The surveillance is conducted in accordance with Commission Delegated Regulation (EU) 2020/689.

Materials and methods

Flock selection and sampling

The 2025 programme consisted of serological screening of blood samples from poultry. As outlined in Commission Delegated Regulation (EU) 2020/689, complementary surveillance for infection with HPAIV must apply to poultry species that generally do not show significant clinical signs (ducks and geese). In addition, targeted sampling and testing for infection with LPAIV may apply to turkeys and laying hens, including those kept free-range (1). The poultry flock selection in 2025 included all breeding establishments (chickens, turkeys, ducks

and geese), as well as establishments with fattening ducks, fattening geese, fattening turkeys, and a selection of layer flocks including all organic free-range and some conventional flocks.

Annual blood samples were collected from ten birds within *Galliformes* establishments and 50 birds within *Anseriformes* establishments for serological screening. Furthermore, annual blood samples were obtained from ten birds within all organic, free-range layer establishments with more than 100 birds, as well as samples from a risk-based selection of establishments with conventional laying hens. At slaughter, ten birds were sampled from each fattening turkey establishment, while 50 birds were sampled from all fattening duck and geese establishments. In cases where the flock size fell short of the required number of samples, all birds were sampled. If multiple compartments existed within the establishment, samples were collected from all compartments.

Laboratory analyses

A multispecies competitive ELISA kit from IDvet (ID Screen® Influenza A Antibody Competition Multi-species) was used to screen serum samples for antibodies against influenza A virus. The test detects antibodies to all influenza A subtypes and antigenic variants by measuring their ability to compete with a monoclonal antibody against a highly conserved epitope of the influenza A virus nucleoprotein.

Samples with positive or inconclusive results in the initial ELISA screening were retested in duplicates. Samples were concluded to be negative if retesting produced negative results. Serological results indicating the likely presence of current or previous avian influenza infection in a flock will immediately be reported to the Norwegian Food Safety Authority.

In samples with inconclusive results from ELISA retesting, or in cases of individual positive samples within an otherwise negative batch, the subtype specificity was investigated by a haemagglutination inhibition (HI) test as described in the WOAH diagnostic manual (3) and by the European Reference Laboratory (EURL) for Avian Influenza and Newcastle disease (4). As recommended in Commission Delegated Regulation (EU) 2020/689 (1), the antigens used in the HI test listed in EU Commission Decision 2010/367/EC (5) have been adapted to match currently circulating strains, according to yearly participation in the EURL proficiency test. The EURL and the Animal and Plant Health Agency (Weybridge, United Kingdom) supplied Norway with the primary antigens A/turkey/Italy/21VIR9520-3/21 (H5N1), A/teal/England/7894/06 (H5N3) and A/turkey/England/647/77 (H7N7), and the secondary antigens A/duck/England/14 (H5N8) (primary in ducks and geese) and A/African starling/983/79 (H7N1). Samples were concluded to be negative for subtypes H5 and H7 if the HI test results were negative. If any samples in the surveillance programme test positive for H5 or H7 in the HI test, this will give rise to a suspicion of infection, and the Norwegian Food Safety Authority will be notified accordingly. Follow-up sampling and virological investigations of relevant sample material may subsequently be carried out in the flock, as determined and coordinated by the Norwegian Food Safety Authority.

Results and Discussion

In 2025 2,754 samples were selected for AIV surveillance from 290 poultry flocks. Of these samples, 2,748 were negative, three were inconclusive, and three samples (0.11%) were positive during the initial screening for antibodies to influenza A virus. Upon retesting in duplicates, all positive or inconclusive samples were found to be negative for antibodies.

In conclusion, all poultry flocks tested in the surveillance programme for avian influenza were negative for antibodies to influenza A virus subtypes H5 and H7. Table 1 shows the number of flocks and birds tested in 2025.

Table 1. Number of breeding flocks, commercial flocks, and birds tested in the surveillance programme for AI in poultry in Norway in 2025.

Species	Breeding flocks		Commercial flocks (laying hens and fattening turkeys/ducks/geese)		Total	
	Flocks	Birds	Flocks	Birds	Flocks	Birds
Chicken	94	849	137	919	231	1,768
Turkey	8	78	43	439	51	517
Duck	2	120	5	300	7	420
Goose	1	49			1	49
Total	**105**	**1,096**	**185**	**1,658**	**290**	**2,754**

In 2025, one outbreak of HPAI was detected in poultry and captive birds in Norway. In September 2025, HPAIV subtype H5N1 was confirmed in a flock with 7,500 laying hens in Hadsel municipality, Nordland county. The birds showed clinical signs consistent with HPAI and were sampled based on suspicion. The diagnosis was based on PCR analysis of tracheal and cloacal swabs.

A separate surveillance report on avian influenza in wildlife is available here: https://www.vetinst.no/en/surveillance-programmes/avian-influenza-in-wild-birds

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References

1. Commission Delegated Regulation (EU) 2020/689 of 17 December 2019 supplementing Regulation (EU) 2016/429 of the European Parliament and of the Council as regards rules for surveillance, eradication programmes, and disease-free status for certain listed and emerging diseases Council Directive 2005/94/EC. OJ L 174, 3.6.2020, p. 211–340. https://eur-lex.europa.eu/eli/reg_del/2020/689/oj
2. Swayne, D. E., Boulianne, M., Logue, C. M., McDougald, L. R., Nair, V., & Suarez, D. L. (2020). Diseases of poultry 14th ed. Wiley-Blackwell.
3. World Organization of Animal Health. Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, twelfth edition 2023. Section 3.3, Chapter 3.3.4 Avian influenza (including infection with high pathogenicity avian influenza viruses). https://www.woah.org/fileadmin/Home/eng/Health_standards/tahm/3.03.04_AI.pdf
4. Istituto Zooprofilattico Sperimentale Delle Venezie European Union Reference Laboratory for Avian Influenza and Newcastle Disease: SOP IMM 064 – ed. 00 - 12/20. Detection of subtype-specific antibodies to Avian Influenza virus by haemagglutination inhibition test. Online controlled document no. 01/01. Accessed 16.05.2024. The updated version is available at https://www.izsvenezie.com
5. EU Commission Decision 2010/367/EC of 25 June 2012 on the implementation by Member States of surveillance programmes for avian influenza in poultry and wild birds. OJ L 166/22, 1.7.2010. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010D0367&from=EN

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