Situation report period covered: 30 June to 31 August 2022

This report provides an update of the high pathogenicity avian influenza (HPAI) situation, according to the information submitted through the World Animal Health Information System of the World Organisation for Animal Health (WAHIS) between 30 June and 31 August 2022.

Seasonal trend

Using data reported to the World Organisation for Animal Health (WOAH) between 2005 and 2019 by 76 affected countries and territories for 18,620 outbreaks in poultry, we carried out a Seasonal and Trend decomposition using Loess (STL) analysis to determine the seasonal pattern of the disease (detailed methodology presented in Awada et al., 2018¹). Based on the data reported to WOAH, spread is lowest in September, begins to rise in October, and peaks in February. Figure 1 shows the global seasonal pattern of HPAI in poultry and the red rectangle indicates where we currently are in the cycle based on the period covered in "recent updates" below.

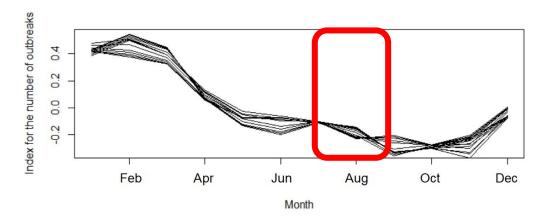


Figure 1. Seasonal trend in global HPAI incidence in poultry

Recent updates (30/06/2022 - 31/08/2022)

To describe the current disease situation of HPAI in poultry and in non-poultry birds, this section covers: (a) a list of new events² which started during the 9-week period (reported through immediate notifications); (b) information on events that started before the 9-week period but were still ongoing during that period; (c) the geographic distribution of new outbreaks³ that started during the 9-week period and d) events which started before the 9-week period but were reported during the 9-week period. The different subtypes of HPAI circulating during the 9-week period are also listed below. This information is based on the immediate notifications and follow-up reports received by WOAH.

HPAI in poultry

New events by world region (reported through immediate notifications)

Europe

Subtype H5N1

Two recurrences started in Germany

- One recurrence started in Schleswig-Holstein on 14 July 2022.
- One recurrence started in Niedersachsen on 19 July 2022.

A recurrence started in Poland (Wielkopolskie) on 18 July 2022.

Russia reported a first occurrence in a zone. HPAI H5N1 first occurred in Maga Buryatdan on 22 July 2022. Moldova reported a first occurrence in a zone. HPAI H5N1 first occurred in Făleşti on 31 July 2022.

A recurrence started in Spain (Andalucía) on 1 August 2022.

¹ Awada L, Tizzani P, Noh SM, Ducrot C, Ntsama F, Caceres P, Mapitse N and Chalvet-Monfray K, 2018. Global dynamics of highly pathogenic avian influenza outbreaks in poultry between 2005 and 2016—focus on distance and rate of spread. Transboundary and Emerging Diseases, 65, 2006–2016. https://doi.org/10.1111/tbed.12986

² As defined in Article 1.1.2. of the OIE Terrestrial Animal Health Code, an "event" means a single outbreak or a group of epidemiologically related outbreaks of a given listed disease or emerging disease that is the subject of a notification. An event is specific to a pathogenic agent and strain, when appropriate, and includes all related outbreaks reported from the time of the initial notification through to the final report. Reports of an event include susceptible species, the number and geographical distribution of affected animals and epidemiological units.

³ As defined in the glossary of the OIE Terrestrial Animal Health Code, an "outbreak" means the occurrence of one or more cases in an epidemiological unit

Africa, Americas, Asia and Oceania

No new events reported

On-going events for which there were new reported outbreaks, by world region (reported through follow-up reports):

Africa

Subtype H5N1

Nigeria

Americas

Subtype H5N1

Canada, United States of America

Asia

Subtype H5N1

Philippines

Subtype H5N2

Chinese Taipei

Europe

Subtype H5N1

France, Netherlands, United Kingdom

Oceania

No new outbreaks reported in the on-going events, or no on-going events

New outbreaks and associated subtypes

During the period covered by this report, a total of 102 new outbreaks in poultry were reported by 13 countries and territories (Canada, Chinese Taipei, France, Germany, Moldova, Netherlands, Nigeria, Philippines, Poland, Russia, Spain, United Kingdom, United States of America). Details are presented in Figures 2 and 3.



Figure 2. Distribution of HPAI new outbreaks in poultry, and corresponding subtypes

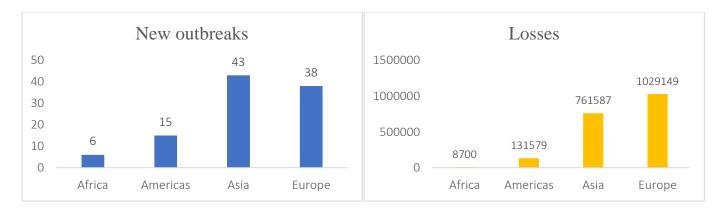


Figure 3. Number of new outbreaks and associated losses by geographical region (losses include animals dead and killed and disposed of within outbreaks – they do not include culling around outbreaks)

Events which started before the 9-week period but were reported during the 9-week period (reported through immediate notifications)

Africa, Americas, Asia, Europe, and Oceania No events reported

HPAI in non-poultry

New events by world region (reported through immediate notifications)

Asia

Subtype H5N1

A recurrence started in China (People's Rep. of) (Qinghai) on 7 July 2022.

Europe

Subtype H5N1

A recurrence started in Ireland (Donegal and Kerry) on 4 July 2022.

United Kingdom reported a first occurrence in a zone. HPAI H5N1 first occurred in Guernsey Exclusive Economic Zone on 11 July 2022.

Two recurrences were reported by Russia:

- One recurrence started in Samara on 27 July 2022.
- One recurrence started in Chelyabinsk on 17 August 2022.

A recurrence started in Portugal (Beja and Coimbra) on 27 July 2022.

Africa, Americas, and Oceania

No new events reported

On-going events for which there were new reported outbreaks, by world region (reported through follow-up reports):

Africa

Subtype H5N1

South Africa

Americas

Subtype H5N1

Canada, United States of America

Europe

Subtype H5

Belgium

Subtype H5N1

Belgium, Denmark, Finland, France, Germany, Netherlands, Norway, Poland, Russia, Spain, Sweden, United Kingdom

Subtype H5N5

Norway

Asia and Oceania

No new outbreaks reported in the on-going events, or no on-going events.

New outbreaks

During the period covered by this report, a total of 332 outbreaks in non-poultry were reported by 18 countries (Belgium, Canada, China (People's Rep. of), Denmark, Finland, France, Germany, Ireland, Netherlands, Norway, Poland, Portugal, Russia, South Africa, Spain, Sweden, United Kingdom, United States of America). Details are presented in Figures 4 and 5.

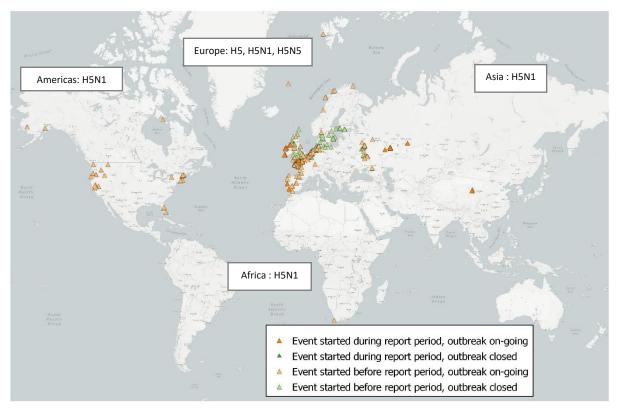


Figure 4. Distribution of HPAI new outbreaks in non-poultry birds, and corresponding subtypes.

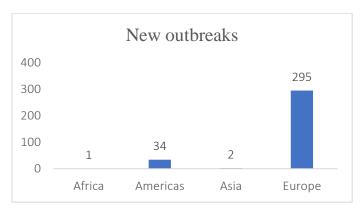


Figure 5. Number of new outbreaks by geographical region

Events which started before the 9-week period but were reported during the 9-week period (reported through immediate notifications)

Asia

Subtype H5N1

A recurrence started in Chinese Taipei (Chinese Taipei) on 24 May 2022.

Europe

Subtype H5N1

A recurrence started in Faeroe Islands (Sandoyar and Vågø) on 9 May 2022.

Africa, Americas, Asia, and Oceania

No events reported

Epidemiological background

High pathogenicity avian influenza (HPAI) is caused by influenza A viruses in the family Orthomyxoviridae. Since its identification in China (People's Rep. of) in 1996, there have been multiple waves of intercontinental transmission of the H5Nx Gs/GD lineage virus. HPAI has resulted in the death and mass slaughter of more than 316 million poultry worldwide between 2005 and 2021, with peaks in 2021, 2020 and 2016. During each of the years 2006, 2016, 2017 and 2021, more than 50 countries and territories in the world were affected with HPAI. In addition, up to now, humans have occasionally been infected with subtypes H5N1 (around 850 cases reported, of which half died), H7N9 (around 1,500 cases reported, of which about 600 died), H5N6 (around 80 cases reported, of which about 30 died), H9N2 (around 75 cases reported, of which 2 died) and sporadic cases have been reported with subtypes H3N8, H7N4, H7N7 and H10N3^{4,5,6,7,8}.

Key messages

The current HPAI epidemic season continues with about 100 outbreaks being reported in poultry and about 330 outbreaks reported in non-poultry birds over the 9 weeks covered by the report, mainly in Europe and Asia, and also in Africa and the Americas. Nearly 2 million birds died or were culled during the 9 weeks period. The predominant subtype noticed in the current epidemic season is subtype H5N1. The World Organisation for Animal Health (WOAH) recommends that countries maintain their surveillance efforts, the biosecurity measures at farm level, and continue timely reporting of avian influenza outbreaks in both poultry and non-poultry species. High quality of information is key to support early detection and rapid response to potential threats to both animal and public health.

Visit our <u>website</u> for more information on avian influenza. For any press inquiry on the disease, you can email us at **media@woah.org**

Other relevant resources

- WHO, Human infection with avian influenza A(H5) viruses
- World Organisation for Animal Health (WOAH), <u>Self-declared Disease Status</u>
- World Animal Health Information System (WAHIS)
- OFFLU avian influenza VCM report for WHO vaccine composition meetings (February 2022)
- OFFLU annual report 2021
- Preliminary FAO/OIE/WHO Joint Rapid Risk Assessment of Human infection with Influenza

A(H3N8), China

OFFLU H3N8 Technical Statement, June 2022

⁵ WHO. Influenza (Avian and other zoonotic), 2018, available at https://www.who.int/news-room/fact-sheets/detail/influenza-(avian-and-other-zoonotic)

⁴ Chen H. 2019. H7N9 viruses. Cold Spring Harb Perspect Med doi: 10.1101/cshperspect.a038349

⁶ WHO. Cumulative number of confirmed human cases for avian influenza A(HSN1) reported to WHO, 2003-2021, 21 May 2021, available at https://www.who.int/publications/m/item/cumulative-number-of-confirmed-human-cases-for-avian-influenza-a(h5n1)-reported-to-who-2003-2021-21-may-2021

⁷ Yang L, Zhu W, Li X, Chen M, Wu J, Yu P, Qi S, Huang Y, Shi W, Dong J, Zhao X, Huang W, Li Z, Zeng X, Bo H, Chen T, Chen W, Liu J, Zhang Y, Liang Z, Shi W, Shu Y, Wang D. 2017a. Genesis and spread of newly emerged

highly pathogenic H7N9 avian viruses in mainland China. J Virol doi: https://doi.org/10.1128/JVI.01277-17

^{*}WHO, Avian Influenza Weekly Update Number 859, https://www.who.int/docs/default-source/wpro---documents/emergency/surveillance/avian-influenza/ai_20220826.pdf?sfvrsn=5f006f99_103