

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 19 May and 8 June 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.

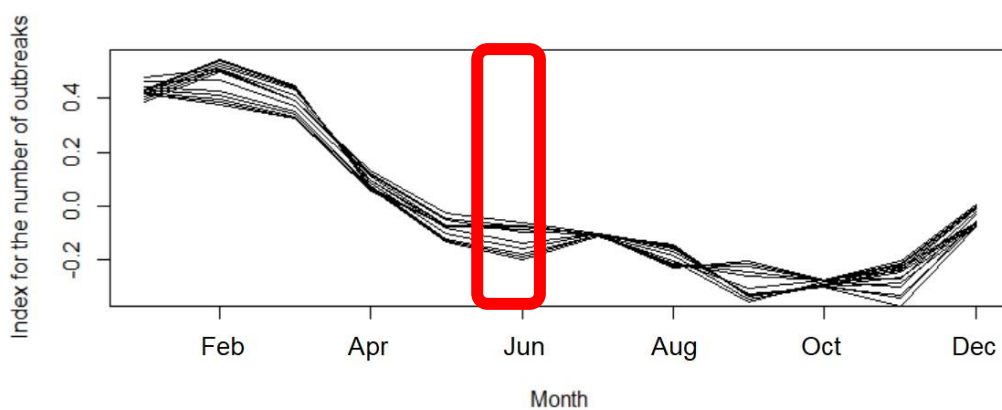


Figure 1. Seasonal trend in global HPAI incidence in poultry

Recent updates (19/05/2022 – 08/06/2022)

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 3-week period (reported through immediate notifications); (b) information on events that started before the 3-week period but were still ongoing during that period; (c) the geographic distribution of new outbreaks³ that started during the 3-week period and d) events which started before the 3-week period but were reported during the 3-week period. The different subtypes of HPAI circulating during the 3-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

A recurrence started in Slovakia (Nitriansky) on 24 May 2022.

Africa, Americas, Asia and Oceania

No new events reported

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.

On-going events for which there were new reported outbreaks, by world region (reported through follow-up reports):**Americas**Subtype H5N1

United States of America

AsiaSubtype H5N8

Iraq

EuropeSubtype H5N1

Hungary, United Kingdom

Africa and 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 26 new outbreaks in poultry were reported by 5 countries (Hungary, Iraq, Slovakia, United Kingdom, and United States of America). Details are presented in Figures 2 and 3.

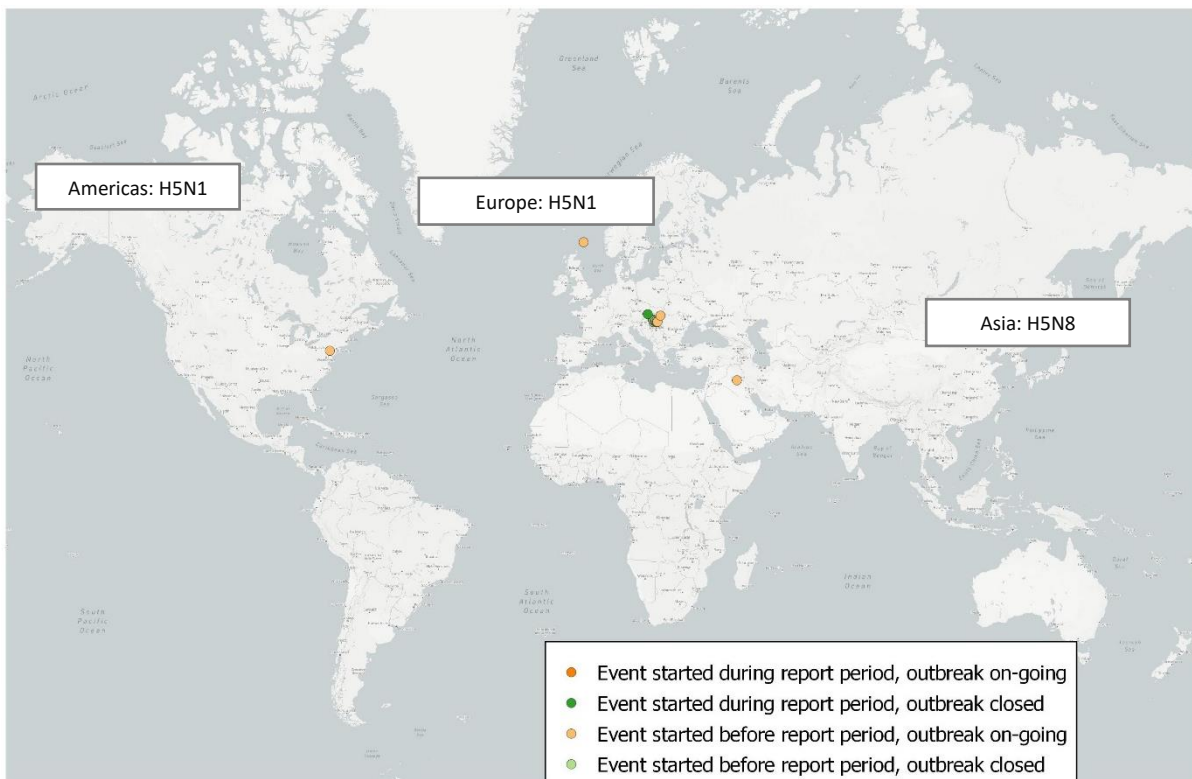


Figure 2. Distribution of HPAI new outbreaks in poultry, and corresponding subtypes

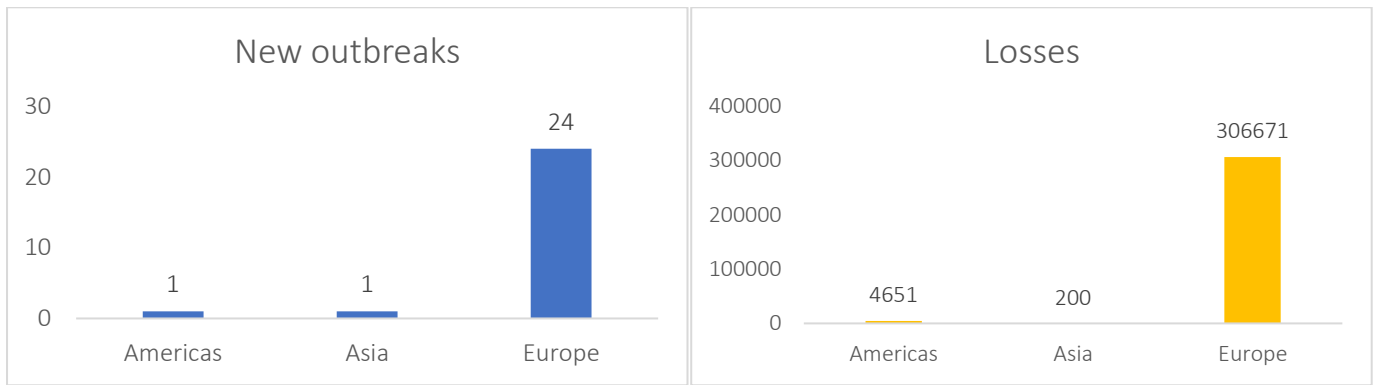


Figure 3. Number of new outbreaks and associated losses by geographical region (losses include animals dead and killed and disposed of)

Events which started before the 3-week period but were reported during the 3-week period (reported through immediate notifications)

Africa

Subtype H5N1

The first occurrence of HPAI started in Gabon on 13 April 2022 (first occurrence in the country).

The first occurrence of HPAI started in Guinea on 18 April 2022 (first occurrence in the country).

Asia

Subtype H5N8

A recurrence started in Iraq (Wasit) on 18 May 2022.

Americas, Europe, and Oceania

No events reported

HPAI in non-poultry

New events by world region (reported through immediate notifications)

Europe

Subtype H5N1

A recurrence started in Russia (Russian Exclusive economic Zone) on 26 May 2022.

The first occurrence started in Russia (Ryazan') on 28 May 2022.

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):

Americas

Subtype H5N1

United States of America

Europe

Subtype H5N1

Belgium, Finland, Germany, Netherlands, Poland

Africa, 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 25 outbreaks in non-poultry were reported by 7 countries (Belgium, Finland, Germany, Netherlands, Poland, Russia, Unites 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.

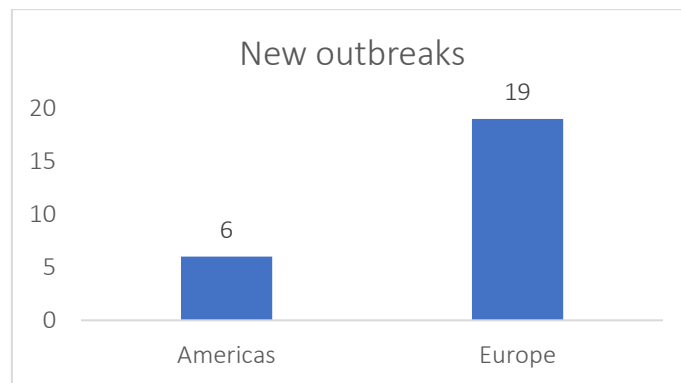


Figure 5. Number of new outbreaks by geographical region

Events which started before the 3-week period but were reported during the 3-week period (reported through immediate notifications)

Asia

Subtype H5N2

The recurrence of HPAI H5N2 started in Chinese Taipei (Chinese Taipei) on 23 February 2022.

Africa, Americas, Europe, 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 75 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 fewer outbreaks being reported in poultry and non-poultry mainly in Europe, and also in the Americas and Asia over the 3 weeks covered by the report. The predominant subtype noticed in the current epidemic season is subtype H5N1. The number of new events remains low globally and few outbreaks continue to be reported in on-going events, which is consistent with the known global seasonality of the disease. However, 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.

Your opinion matters!

We're improving our animal health situation reports, and want to hear how you think we can make them better. Click [here](#) to answer our short survey.

Other relevant resources

- [OFFLU avian influenza statement](#)
 - [OFFLU statement on outbreak of H5N1 high pathogenicity avian influenza in Newfoundland, Canada](#)
 - [WHO, Human infection with avian influenza A\(H5\) viruses](#)
 - WHO 2021, [Assessment of risk associated with highly pathogenic avian influenza A\(H5N6\) virus](#)
 - World Organisation for Animal Health (WOAH), [Self-declared Disease Status](#)
 - World Animal Health Information System ([WAHIS](#))
 - [OFFLU Influenza A Cleavage sites update 2021](#)
 - [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](#)

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

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

⁶ WHO. Cumulative number of confirmed human cases for avian influenza A(H5N1) 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](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>

⁸ WHO, Avian Influenza Weekly Update Number 848, https://www.who.int/docs/default-source/wpro---documents/emergency/surveillance/avian-influenza/ai_20220610.pdf?sfvrsn=22ea0816_10