Department for Environment, Food and Rural Affairs

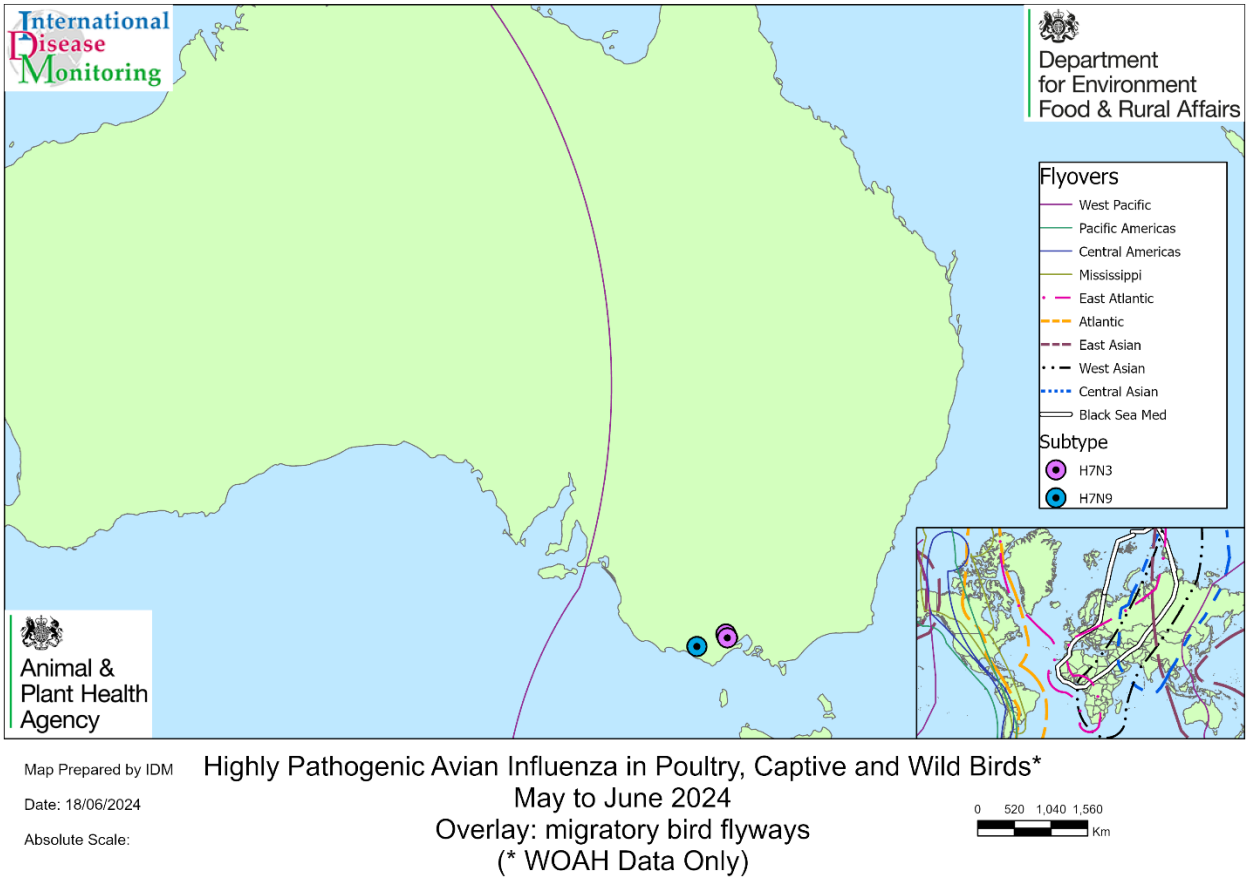
Preliminary Outbreak Assessment

Highly pathogenic avian influenza (H7N3 and H7N9) in poultry in Australia

17 June 2024

Disease report

On 17 May 2024 High Pathogenicity Avian Influenza (HPAI) H7N3 was detected in poultry on a farm in Meredith in the State of Victoria in southern Australia (Map 1). Five days later, on 22 May 2024, HPAI H7N9 was detected in poultry on a farm in Terang also in the State of Victoria (Map 1). To date (17 June 2024) a total of 6 poultry farms have been infected with HPAI H7N3 in Meredith (Victoria) and one supermarket chain is limiting the number of eggs customers can buy to avoid a shortage. The risk to poultry in Great Britain of HPAI H7N9 and H7N3 from Australia is currently assessed as **negligible.**



Map 1. High Pathogenicity Avian Influenza H7 outbreaks in poultry in Australia from 1 May 2024 to 17 June 2024. Showing a small number of reports in the south-east of the country.

Situation assessment

Following the spread of HPAI H5 and H5N1 into seabirds in the sub-Antarctic islands in the South Atlantic (The Falkland Islands and South Georgia) in October 2023 and then the Antarctic Peninsula in January and February 2024, the authorities in Australia have been prepared for detections of HPAI H5 in seabirds in Oceania. Instead, however, HPAI H7 has been detected on 6 poultry farms. On 17 May 2024, HPAI H7N3 was detected on a farm with 413,000 poultry in Meredith (Map 1). There were approximately 7,500 clinically affected birds. The premises was a mixed caged, barn, and free-range commercial egg layer poultry farm. Biosecurity controls were immediately implemented on the farm including requirements for removing protective clothing, and prohibition of movement of eggs and livestock (Victoria Government Gazette 2024a). Since then to 17 June 2024, HPAI H7N3 has been reported on a further 5 poultry farms in Meredith between Ballarat and Geelong. The second H7N3 outbreak was detected on 2 June 2024 in a flock of 321,121 poultry with 110 clinically affected birds in a mixed free-range and caged egg layer farm in Lethbridge. The third H7N3 outbreak was detected on 3 June 2024 in a flock of 136,000 poultry with 43 clinically affected birds on a pullet rearing, barn style farm in Meredith. This third property is located within the current 5km Restricted Area (RA) surrounding the first property in Meredith. The fourth H7N3 outbreak was in egg-laying poultry on a farm in Meredith. The fifth outbreak reported on 13 June 2024 was also in Meredith. Restricted Areas have been established covering a 5km radius around the infected premises and broader Control Area (CA) buffers of 15km radius are also in place around the RAs (Agriculture Victoria 2024). The sixth outbreak was reported by Agriculture Victoria on 17 June, with no further details available at the time of writing. A surveillance plan for poultry premises within the CA and RA, including wild birds, is being developed.

On 22 May 2024, HPAI H7N9 was detected on a poultry farm with 160,000 birds in Terang (Map 1). There were 14,000 clinically affected birds. This was a mixed free-range and caged commercial egg layer poultry farm. The farm had a commercial link with the Meredith farm but through management needs only. Biosecurity controls have been implemented on the farm and epidemiology investigations and contact tracings are underway (Victoria Government Gazette 2024b). A CA and RA have been declared around the premises.

Movement controls have been implemented in the CAs and RAs. A requirement to house all birds within the CAs and RAs in Meredith and Terang has been put in place (Agriculture Victoria 2024) and all poultry farmers, backyard flock and bird owners must keep their birds enclosed in cages or sheds.

More than 600,000 egg-laying hens are to be culled at the affected farms. There are more than 21 million hens in the national egg flock in Australia (Anon 2024a). Victoria is the third largest egg producing state in Australia and the Victorian Farmers Federation say that about one in 16 egg-laying chickens will have been destroyed reducing the state’s supply by about 450,000 eggs per day. The supermarket Coles has introduced a temporary limit of 2 egg cartons per customer in all stores across the nation except in Western Australia, although other supermarkets are not limiting egg sales (Anon 2024b).

HPAI H7 outbreaks in poultry in Australia last occurred in 2020 with H7N7 infecting 3 free-range farms in Victoria in July and August. It is thought that a period of wet years followed by a period of dry years in Australia contribute to avian influenza infection in poultry as the wet years give an abundance of naïve birds which then congregate at poultry farms during the drought (Ferenczi et al. 2021). Assessment of wild birds for H7Nx viruses is ongoing although H7 viruses have only been sporadically detected in wild bird species (Wildlife Health Australia, 2024)

Implications for Great Britain

Direct routes of transmission of HPAI virus from Australia to Great Britain through wild bird migrations do not exist. Transmission from poultry back to wild birds is considered unlikely to occur, and there may be resistance to the H7 viruses in wild birds in the local area in Victoria, since the virus is considered likely to have originated from wild birds. Spread of H7 northwards from Australia through migrating wild birds, wader species in particular, into south-east Asia and even Siberia could occur next spring, leading theoretically to HPAI H7 eventually spreading westwards into northern Europe and Great Britain. However, this would take a period of years and multiple exchanges of virus between different wild bird populations across the northern hemisphere. China has reported 27 outbreaks of H7N9 in poultry in the recent past (2017 and 2018) with one outbreak in the USA in 2017. To date northern Europe and Great Britain have not reported incursions of H7N9 in poultry. Currently it is considered that the risk of HPAI H7 entering Great Britain through wild birds directly or indirectly from Australia is negligible. HPAI H7 can be transmitted via fomites on contaminated equipment, vehicles and people, but it is considered a highly unlikely route that any contaminated equipment is entering and being utilised on farms in Great Britain. Given there are only 7 outbreaks to date, the probability of entry of HPAI H7 through fomite transmission through human air travel (on shoes and clothing for example) is negligible. Other routes of entry of Australian HPAI H7 virus into Great Britain to consider are via trade in live poultry and poultry products from affected farms in Victoria. Trade in live poultry from Australia is negligible. Whilst Australia is listed to export poultry meat, meat products, live poultry and hatching eggs to Great Britain, imports were already restricted before the HPAI H7 outbreaks because Australia does not have an approved Residue Control Plan (RCP) for poultry meat or an approved Salmonella Control Programme (SCP) for live poultry and hatching eggs. Australia was approved to export ratite meat and live ratites including ratite hatching eggs to Great Britain and these have now been restricted. It is considered that the probability of HPAI H7 entering Great Britain through imported meat and poultry products is currently negligible.

Conclusion

High pathogenicity avian influenza (HPAI) H7 occurs in poultry from time to time in Australia. Although Australia is on alert for HPAI H5N1 entering through wild birds from the Southern Ocean following its detection on the Antarctic Peninsula, 7 outbreaks of HPAI H7 have been reported in May and June in poultry farms in Victoria in southern Australia. Six are H7N3 and the other is H7N9. The initial outbreaks are thought to have originated from

wild birds. The probability of the HPAI H7 virus entering Great Britain through wild birds from Australia is **negligible**. The probability of entry of HPAI H7 virus through other routes including trade and fomites is also considered **negligible**. HPAI H5N1 virus is still being sporadically reported in wild birds and poultry in Europe and is separate from the HPAI H7 discussed here in Australia with slightly higher risk levels (Defra 2024).

Authors

- Dr Paul Gale
- Geraldine Burns
- Megan Arter-Hazzard
- Dr Lauren Perrin
- Prof Ashley Banyard

References

All outbreaks and cases were taken from the World Organisation for Animal Health (WOAH).

- Agriculture Victoria (2024) Avian Influenza (bird flu).
- Anon (2024a) 'Fewer eggs on shelves' as bird flu culls affect production, says poultry industry - ABC News.
- Anon (2024b) Coles limits egg purchases as bird flu spreads to a fifth Victorian farm - ABC News.
- Defra (2024) High pathogenicity avian influenza (HPAI) in the UK and Europe.
- Ferenczi, M., Beckmann, C. & Klaassen, M. Rainfall driven and wild-bird mediated avian influenza virus outbreaks in Australian poultry. *BMC Vet Res* **17**, 306 (2021).
- Victoria Government Gazette (2024a) Gazette on Wednesday 5 June.
- Victoria Government Gazette (2024b) Gazette on Wednesday 29 May.
- Wildlife Health Australia (2024) Avian influenza in wild birds in Australia: Fact Sheet
- WOAH (2023) World Animal Health Information System (WAHIS)

This publication is available at https://www.gov.uk/government/collections/animal-diseases-international-monitoring.

Any enquiries regarding this publication should be sent to us at iadm@apha.gov.uk.