

Preliminary Outbreak Assessment

High Pathogenicity Avian Influenza (H5N8) in Russia

4 September 2020

Ref: VITT/1200 HPAI H5N8, Russia

Disease report

The Russian Authorities are reporting multiple outbreaks of highly pathogenic avian influenza virus (HPAIV) H5 with high mortality rates in poultry and also in wild waterbird carcasses in southern central Russia close to the border with Kazakhstan at the end of August following initial reports of HPAIV H5N8 at the end of July.



Highly pathogenic avian influenza in Poultry and Wild birds
July - August 2020
Overlay: migratory bird flyways

Situation assessment

On 28 July, Russia detected two outbreaks of HPAI H5N8 in backyard birds on premises in villages in the Uvel'sky region, Chelyabinskaya Oblast, in the south near the border with

Kazakhstan. Both premises reported having a mix of chickens, ducks and geese. The first, in Peschanoe, reported 99 cases out of 156 birds. The second, in Maloe Shumakovo, reported mortality of all 30 birds on the premises. Restriction zones were established and the birds culled. On 04 August, neighbouring Kazakhstan also implemented temporary restrictions on the import and transit of poultry and food products from Russia (Kazakh-TV, 2020). A wild duck carcass was also found during avian influenza passive surveillance on the lake near one of the villages just before the outbreak started. HPAIV H5N8 was detected in a sample of the wild duck carcass. The species of the wild duck is not known, nor is it known whether it is a migratory species.

In mid-August, three outbreaks of HPAIV H5 were detected in village/backyard birds in Omskaya Oblast with almost 50% of birds affected and dying. A further 17 outbreaks were then detected in the third and fourth weeks of August in Omskaya, Kurganskaya and Chelyabinskaya Oblasts. Most were in backyard or village birds although one huge farm with over 1.5 million birds in Omskaya Oblast was infected with over 10,000 birds reported dead. In late August and early September, eight outbreaks were detected in backyard birds in Tyumenskaya and Omskaya Oblasts with approximately 25% of birds affected and dying.

In late August, four wild mute swans (*Cygnus olor*) were found dead in Tyumenskaya Oblast and HPAIV H5 confirmed with PCR. Although mute swans do not migrate to the UK, the detection of H5N8 in wild birds and poultry in this region is significant, particularly at this time of year. Some waterfowl species which winter in western Europe, including the UK, also breed in this region of Russia and will migrate west in the coming weeks.

In summer 2016, HPAI H5N8 was reported in wild birds in south-central Russia, spreading to west Russia in the autumn. Subsequently, the virus was detected in a large number of outbreaks across Europe from autumn 2016, through to the first quarter of 2017. This was the largest known HPAI epidemic in Europe, affecting both poultry and wild birds. The H5N8 virus has evolved in the last 6 years since its first appearance and has frequently exchanged genetic material (reassortment) during its spread in wild birds across their migratory range and in domestic ducks, not only in China, but also in central Asia, Europe, Africa and North America. (Lycett et al., 2020). The genotype of the current H5N8 viruses in Russia is not yet known, and importantly it is not known whether this virus is showing further genetic reassortment compared to the 2016/17 and 2019/20 forms of the virus that spread to Europe. Increased fitness of these viruses for wild birds through such exchange is possible.

The outbreaks in poultry in Russia confirm the virus retains HPAI properties with typical high mortality in chickens, ducks and geese. Therefore, if this H5N8 strain were to spread to Europe later this year, outbreaks in poultry should be detected relatively quickly, giving some warning of a potential increase in risk. Clinical impact on wild birds is more uncertain and so therefore is the utility of passive surveillance of wild birds but mortality events suggest this virus(es) results in fatal infection at least in some species.

Conclusion

The OIE/FAO international reference laboratory/UK national laboratory at Weybridge has the necessary ongoing diagnostic capability for these strains of virus, whether low or high pathogenicity AI and continually monitors changes in the virus.

In total in southern central Russia, 29 backyard/village bird outbreaks of HPAIV H5 have been reported with one very large poultry farm in addition to two detection events in wild waterbird carcasses including four mute swans.

Currently the risk of HPAI incursion in wild birds in the UK is **LOW** (i.e. no change at present), and we are monitoring the recent outbreaks in Russia in terms of assessing the risk for further outbreaks over the coming months and increased probability of its spreading westwards during the autumn. The risk for poultry in the UK remains **low** for introduction of infection onto individual premises, but will depend on levels of biosecurity.

We recommend that all poultry keepers stay vigilant and make themselves aware of the latest information on www.gov.uk, particularly about recommendations for biosecurity and how to register their flocks.

We will continue to report on any updates to the situation in Russia and, in particular, any changes in disease distribution or wild bird movements which may increase the risk to the UK.

Further information is available here: <https://www.gov.uk/guidance/avian-influenza-bird-flu> including updated biosecurity advice for poultry keepers for England; <https://gov.wales/avian-influenza> for Wales and; <http://gov.scot/avianinfluenza> for Scotland.

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References

All disease reports are available from the OIE WAHIS database.

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Advice Services - International Disease Monitoring

KAZAKH-TV, 2020

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