

Rapid opinion 25-2020 of the Scientific Committee established at the FASFC on the renewed risk assessment associated to highly pathogenic avian influenza H5Nx viruses

Terms of reference

Several outbreaks of avian influenza due to highly pathogenic avian influenza (HPAI) H5Nx viruses have been reported in Europe in both domestic flocks and wild birds since mid-October 2020. In this context and considering the previously issued opinions 06-2015 and 09-2015, three questions are asked to the Scientific Committee:

- Does the Scientific Committee's opinion 09-2015 on highly pathogenic avian influenza viruses, and in particular the H5N8 strain, still apply or has the situation changed in the meantime?
- Should the recommendations to the Regions on passive surveillance in wild birds be adapted?
- Does the Scientific Committee consider that additional preventive measures are necessary in the current situation and if so, which ones? If so, when does the Scientific Committee consider that containment will be necessary for commercial poultry and when for hobby poultry?

At the time of the writing of this opinion, the first cases of infection (subtype H5N8) in wild birds have since also been detected in Belgium. Containment measures have already been put in force for domestic poultry, including private households. The third question will therefore also deal with the duration and lifting of the measures put in force.

Method

This risk assessment is carried out on the basis of expert opinion, data from the scientific literature, the results of active and passive monitoring of wild birds and the conclusions and recommendations already available in the rapid opinion 06-2015 and the opinion 09-2015 of the Scientific Committee.

Conclusion

The global epidemiological context for H5Nx since Opinion 09-2015 shows a continuous genetic evolution of these viruses, with regular reassortment events between HPAIv strains or with local low pathogenic avian influenza (LPAIv) virus strains, and confirms a predominant role of wild bird migrations in local wild bird introductions. Indeed, new strains are regularly imported from South-East Asia via migratory birds and the interconnected locations of migratory corridors (Siberia). The contact that these migratory birds may have with local wild birds during their stopovers allows the emergence of local outbreaks. This increases the risk of introduction into the domestic sector.

The numerous infections reported in Germany, the Netherlands, the United Kingdom, Ireland, France and Denmark, as well as recent cases in Belgium, indicate the presence of a strong dynamic infection by H5Nx (belonging to at least three different subtypes: H5N1, H5N5 and H5N8 of clade 2.3.4.4b, the latter remaining the majority) in wild birds in Northern and North-western Europe. These infections confirm the risk of introduction of these viruses into domestic flocks. Considering the current migration period of wild birds is taking place in a southwards directed migration corridor passing through Belgium, increased vigilance and preventive measures should be put in place on the territory in accordance with the opinion published in 2015. The Scientific Committee considers that the measures recently taken by the FASFC are proportionate to the current epidemiological context.

The routes of transmission (direct and indirect) to commercial or non-commercial (hobbyist) farms, domestic or wild susceptible species, pathogenicity, zoonotic potential (no indication for) and the period at risk (especially the autumn or postnuptial migration period) are similar to those mentioned in the opinions 06-2015 and 09-2015. The alert system, taking advantage of the capture of warning signals from the regions upstream of the main migration corridor over Belgium, and the risk management options mentioned therein are therefore still valid.

For the Scientific Committee, passive monitoring of wild birds is important and its quality, sensitivity and effectiveness must be increased, especially during the risk period. The Scientific Committee proposes various avenues to the competent authorities to improve passive monitoring both in wild birds and in the non-professional domestic poultry sector. Apart from these improvements to be performed on the passive monitoring, the Scientific Committee has not identified any additional preventive measures to those proposed in the opinion 09-2015.

According to the Scientific Committee, there is currently no indication of any zoonotic risk associated with strains of H5Nx that could be present on Belgian territory. However, the Scientific Committee stresses the need to respect a maximum of elementary (preventive) biosecurity measures when handling birds (wild or domestic) suspected or confirmed infected by H5Nx. These measures also limit the risk of spread to wildlife or the domestic poultry sector.

The Scientific Committee has identified an economic impact as well as an animal welfare impact of poultry containment. It stresses the importance of taking them into consideration when lifting the confinement of domestic poultry (i.e. the end of the risk period). Currently, these impacts, coupled with the seasonality of autumn migration and the lower risk associated with spring migration, must be combined with a regular assessment of the situation to enable the lifting of confinement as soon as possible, if epidemiological indicators (signal capture via passive monitoring and reports from neighboring countries) are favorable.

Recommendations

During this period, the Scientific Committee stresses the importance of preventive biosecurity measures, in particular those of 'bioexclusion' (external biosecurity) aimed at reducing the risk of direct introduction of the virus into commercial farms, through contact with wild birds, and indirect introduction of the virus into commercial farms, by animate (human) or inanimate (material) vectors and spread to other farms. For example, by the presence of a pre-local at the entrance to each compartment with a clear separation between dirty and clean areas and a hand-washing facility, and from which the wearing of clean clothing and footwear is compulsory on the holding. For hobbyists and commercial farms with free outdoor runs, preventive measures against direct contact with wild birds while respecting animal welfare must be added, e.g. through the use of nets over outdoor runs. Wild birds may not have access to drinking water from domestic poultry or in captivity. Finally, the Scientific Committee recommends that particular attention be paid to controlling biosecurity during the movement of people and vehicles between farms. The Scientific Committee also recommends mapping (or updating) the commercial farms that are the most at risk due to their proximity to sensitive natural areas in a way targeted surveillance can be considered in times of increased risk.

Considering the role played by poultry traders in 2017, the Scientific Committee recommends that particular attention be paid to them in terms of information and monitoring throughout the period of increased risk.

The Scientific Committee recommends to the competent risk managers that passive surveillance among wild birds and hobbyists be maintained at a sufficient level and intensified during periods of increased risk, anticipating them by detecting the first warning signals upstream of migration routes. The Scientific Committee also recommends stimulating the reporting of abnormal bird deaths in private (hobbyist) poultry farms. Increased vigilance and awareness of the professional sectors, veterinarians (whether specialized in avian medicine or otherwise if they have clients who own poultry or ornamental birds) and hobbyists, as well as of the general public, must be systematically carried out in times of increased risk.

The Scientific Committee recommends the implementation of prevention and quarantine (biosecurity) procedures in revalidation centers during periods of risk.

Finally, the Scientific Committee recommends the implementation of a vigilance system based on citizen involvement in the fight against HPAIv ('citizen science'). This system could have two components:

- a component dedicated to citizen involvement in passive monitoring of wild birds (by facilitating and computerizing bird mortality declarations), including hobbyists;
- a component dedicated to the creation of a registration platform for hobbyists and individuals keeping domestic poultry or in captivity. This platform could make it easier to alert these owners, provide them with detailed information and make it possible to declare mortalities. The objective of this platform should be presented in a positive way for the keepers in order to maximize their adherence.

The full text is available on this website in dutch and in french.