Self-declaration of the recovery of country freedom from Avian Influenza by Denmark

Declaration sent to the OIE on 28 September 2018 by Dr Per S. Henriksen, OIE Delegate for Denmark, Ministry of Environment and Food

1. Introduction

Denmark requests the OIE to publish this self-declaration.

The objective of the declaration is recovery of self-declared a freedom from avian influenza in accordance with the provisions of Article 10.4.3. of the OIE Terrestrial Animal Health Code (Terrestrial Code). The self-declaration covers the whole country and describes the two outbreaks of low pathogenic avian influenza (LPAI) reported in May and June 2018. The starting date of the self-declaration is 28 September 2018.

2. Avian influenza situation in Denmark

On 2 May and 25 June 2018, two outbreaks of subclinical infection of LPAI occurred in Denmark. Both outbreaks were detected in connection with the Danish surveillance programme for avian influenza in poultry and game birds. (Table 1) and were promptly reported to the OIE via WAHIS (World Animal Health Information System). A stamping out policy was applied in both outbreaks. The infected flocks were killed, the carcasses were disposed by rendering and the establishments were cleaned and disinfected. Approval of the cleaning and disinfection of the last infected holding was done 28 June 2018.
Table 1. Low pathogenic avian influenza (LPAI) in poultry, Denmark, 2018

<table>
<thead>
<tr>
<th>Outbreak no.</th>
<th>Municipality</th>
<th>Confirmed date</th>
<th>Virus type</th>
<th>No. of Susceptible Birds</th>
<th>species</th>
<th>Holding type</th>
<th>Approval of cleaning and disinfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Holstebro</td>
<td>05/05/2018</td>
<td>LPAI H5*</td>
<td>20,900</td>
<td>Ducks</td>
<td>Ducks for slaughter, free range</td>
<td>11/05/2018</td>
</tr>
<tr>
<td>2</td>
<td>Vordingborg</td>
<td>26/06/2018</td>
<td>LPAI H5N2</td>
<td>2,679</td>
<td>Mallards</td>
<td>Game birds for restocking</td>
<td>28/06/2018</td>
</tr>
</tbody>
</table>

*N type could not be determined

The last previous occurrence of avian influenza in poultry in Denmark, was the outbreak of highly pathogenic avian detected 21 November 2016, when HPAI H5N8 was detected in a backyard poultry flock in Ålsgårde, in the municipality of Helsingør in the north eastern part of Zealand.

3. Control and eradication measures LPAI

Avian influenza H5/H7 is notifiable in Denmark according to national legislation: Order no. 693 of 21.6.2007 on control of highly pathogenic avian influenza and Order no. 1468 of 8.12.2015 on preventive measures in outbreaks of low pathogenic avian influenza H5 or H7 in poultry and other captive birds. Veterinarians and farmers are obligated to notify the Danish Veterinary and Food Administration (DVFA) immediately upon clinical signs of avian influenza.

During the suspicion period the holdings were put under national movement restrictions.

After LPAI confirmation, the DVFA established a restricted zone of 1 km around the infected holdings and implemented the necessary measures in accordance with Council Directive 2005/94/EC and the national legislation Order no. 1468 of 8.12.2015 on preventive measures in outbreaks of low pathogenic avian influenza H5 or H7 in poultry and other captive birds.

Measures at the infected holdings:

- All poultry were immediately killed and the carcasses were disposed by rendering.
- Cleaning and disinfection of buildings, equipment, vehicles etc. were started immediately after the killing.
- An epidemiological investigation was conducted in both cases.

In both outbreaks, contact holdings were traced and tested for AI with negative result. The epidemiological investigation in both outbreaks concluded that the most likely cause of disease introduction was contact with wild birds.

Measures in the restriction zone:

- No poultry, other captive birds, day old chickens, eggs or mammals of domestic species could enter or leave a holding without permission from the DVFA.
- Vehicles and equipment used for transporting live poultry or other captive birds, feed, manure, slurry and bedding and any other material or substances likely to be contaminated were required to be cleaned and disinfected without delay after contamination.
- Any person entering or leaving holdings in the restricted zone was required to observe appropriate biosecurity measures aimed at preventing the spread of avian influenza.
- The removal or spreading of used litter, manure or slurry was prohibited, unless authorized by the DVFA. Carcasses had to be disposed of.
- Release of game birds for hunting was prohibited.
- Fairs, markets, shows or other gatherings of poultry or other captive birds were prohibited.
Owners of hobby poultry flocks within the restricted zone were obligated to register with the DVFA within 8 days from establishment of the zone.

There were no other commercial poultry holdings within the restricted zone. However, in the second outbreak, two hobby poultry flocks were registered within the restriction zone. The hobby flocks were under supervision of the Veterinary Control Office of the DVFA.

Stamping out policy:

Denmark has handled the LPAI outbreaks according to the EU Council Directive 2005/94/EC and followed the precautionary approach and has killed all the affected animals in order to mitigate the risk of mutation or reassortment of the avian influenza virus.

4. Surveillance and early warning system

Poultry

Avian influenza H5/H7 is notifiable in Denmark according to national legislation: Order no. 693 of 21.6.2007 on control of highly pathogenic avian influenza and Order no. 1468 of 8.12.2015 on preventive measures in outbreaks of low pathogenic avian influenza H5 or H7 in poultry and other captive birds. Veterinarians and farmers are obligated to notify the Danish Veterinary and Food Administration immediately upon observation of clinical signs of avian influenza.

Apart from passive surveillance Denmark has a comprehensive active risked based surveillance programme for avian influenza in accordance with Article 10.4.27-10.4.33. and Chapter 1.4 of the OIE Terrestrial Animal Health Code (Terrestrial Code). The Danish surveillance programme for avian influenza in poultry follows the principles in 2010/367/: EU Commission Decision of 25 June 2010 on the implementation by Member States of surveillance programmes for avian influenza in poultry and wild birds.

All commercial holdings in the target group having more than 100 animals are included in the programme. Breeder hens (central rearing flocks) and pullets are tested before release to egg production, outdoor layers four times a year and outdoor slaughter poultry (broilers, ducks and geese) before slaughter. In addition, fattening turkeys are tested before slaughter. Breeder ducks and geese are required to be tested once a year.

Farmed game birds for restocking (gallinaceous birds and waterfowl) are tested four times during the production season. Breeding animals undergo serological testing, and their offspring virological testing.

When traded, poultry and game birds have to be accompanied by a certificate stating that the flock of origin has been tested within the preceding three and two months, respectively.

The surveillance programme is mainly based on serology. PCR testing is used only for offspring from gamebirds. Additionally, PCR testing is used in case of a positive serological result to confirm whether the relevant flock is infected by a virus. All laboratory testing is carried out at the National Veterinary Institute, DTU Vet.

The result of the Danish avian influenza surveillance in poultry is available at page 57 in the annual Animal Health report, see the report for 2017 here: https://www.foedevarestyrelsen.dk/Publikationer/Alle%20publikationer/Animal%20Health%202017.pdf

Table 2. Results of the Danish surveillance programme for avian influenza in poultry and game birds for restocking, Denmark, June 28 – September 27, 2018

<table>
<thead>
<tr>
<th>Poultry category</th>
<th>Holdings (h)/flocks (f) in Denmark&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Holdings (h)/flocks (f) tested</th>
<th>Serologically positive holdings/flocks (H5, H7)</th>
<th>Virologically positive holdings/flocks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>H5</td>
<td>H7</td>
</tr>
<tr>
<td>Fattening turkeys</td>
<td>61 (h)</td>
<td>8 (f)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chicken breeders</td>
<td>191 (f)</td>
<td>94 (f)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Free-range laying hens</td>
<td>158 (f)</td>
<td>114 (f)</td>
<td>4&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0</td>
</tr>
<tr>
<td>Free-range broilers</td>
<td>74 (h)</td>
<td>6 (h)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Breeder ducks</td>
<td>0 (h)</td>
<td>0 (h)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Breeder geese</td>
<td>0 (h)</td>
<td>0 (h)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fattening geese</td>
<td>10 (h)</td>
<td>1 (h)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fattening ducks</td>
<td>81 (h)</td>
<td>11 (h)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mallards breed for restocking of game birds</td>
<td>22 (h)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Breeding animals&lt;sup&gt;3&lt;/sup&gt;</td>
<td>0 (h)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Offspring&lt;sup&gt;4&lt;/sup&gt;</td>
<td>10 (h)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pheasants, partridges, rock partridges and red-legged partridges</td>
<td>70 (h)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Breeding animals&lt;sup&gt;3&lt;/sup&gt;</td>
<td>0 (h)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>- Offspring&lt;sup&gt;4&lt;/sup&gt;</td>
<td>42 (h)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total positives</td>
<td></td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

<sup>1</sup>The holdings/flocks do not necessarily have active production throughout the year.

<sup>2</sup>Four holdings in the category free-range laying hens tested positive for H5 in the serological test, but the following virological examination tested negative.

<sup>3</sup>This category is tested during the spring.

<sup>4</sup>Offspring are tested virological (PCR) before release into the nature during spring and summer.

Source: The Poultry Database of the Danish Agriculture & Food Council and the National Veterinary Institute, Technical University of Denmark, 2018
As a supplement to the surveillance programme a special programme for early warning of AI in commercial poultry and hobby poultry has been in place since 2005.

The AI early warning parameters requiring the owner of the animals to notify are:

- Drop in feed and water intake by more than 20% in 24 hours.
- Drop in egg production by more than 5% for more than two consecutive days.
- Mortality rate higher than 3% in any unit during a three-day period.

Early warnings are notified to the DVFA, and samples are collected from ten birds of the flock for virological (PCR) examination. See also page 55 in the annual Animal Health report, see the report for 2017 here: https://www.foedevarestyrelsen.dk/Publikationer/Alle%20publikationer/Animal%20Health%202017.pdf

Wild birds

Since January 2011, the surveillance programme for avian influenza in wild birds has been divided into an EU-coordinated passive surveillance programme for HPAI in wild birds found dead or sick and a national active surveillance for AI in live birds with an increased risk of exposure to AI and hunted game birds. Birds sourced from passive surveillance are tested individually, and birds sourced from active surveillance are tested by cloacal swabs in pools taken from up to five birds of the same species at the same time and location.

Results of the passive surveillance programme in wild birds can be seen on this website: https://ai.fvst.dk

5. Measures implemented to maintain freedom

According to Danish order no. 522 of 6.6.2012 on preventive measures against avian influenza, there are special biosecurity measures to be met in order to prevent the animals from contact with wild birds:

- Poultry or other captive birds must be fed and watered indoors or under fixed roofs or fixed coverings, ensuring that larger wild birds cannot get into contact with the feed and water
- Poultry and other captive birds are not allowed to have access to surface water or rainwater.
- Ponds/lakes in outdoor poultry areas have to be shielded from larger wild birds.
- Ducks and geese have to be kept physical separated from other poultry.

In case of an avian influenza epidemic (in wild birds) the DVFA can apply stricter rules in order to protect poultry from contact with wild birds. During the avian influenza epidemic in 2016/2017, the DVFA issued a “Housing order” that required all poultry to be kept under roof, though with some derogations concerning ducks, geese and game birds. In addition, fairs, markets, shows or other gatherings of poultry or other captive birds were also prohibited.

The DVFA continuously informs the public and stakeholders about the AI situation in wild birds using press releases, news and facts updates on the DVFA homepage. In addition, the DVFA has introduced an app for smartphones called “FugleinfluenzaTip” (“Bird flu Tip”) in order to make it easier for the public to notify the DVFA in case of findings of dead wild birds.
6. Conclusion

Considering:

- Prior to the confirmation of the first case of LPAI N5 on 5 May 2018 Denmark had been free from avian influenza in poultry (since February 2017).
- Stamping out measures were adopted including cleaning-up and disinfection of the infected holdings.
- Three months have elapsed as prescribed in Article 10.4.3 of the OIE Terrestrial Code since the end of the clean-up and disinfection operations.
- Surveillance have been carried out in accordance with Articles 10.4.27 to 10.4.33 of the OIE Terrestrial Code.

The OIE Delegate of Denmark declares that the country complies with the requirements for a country free from infection with avian influenza in poultry as of 28 September 2018, in accordance with the provisions of Chapter 1.6. and Article 10.4.3. of the OIE Terrestrial Animal Health Code (Terrestrial Code).
Statement to be included in the self-declaration document.

I, the undersigned, Per S. Henriksen, Delegate of Denmark, to the World Organisation for Animal Health (OIE), takes responsibility for the self-declaration of freedom from Avian Influenza, in accordance with the provisions of Article 10.4.3 of the OIE Terrestrial Animal Health Code (disease).

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Drawn up on 25.10.2018.

Signature of the Delegate:

[Signature]