Self-declaration of the recovery of freedom from avian influenza viruses by the Netherlands

Declaration sent to the OIE on 26 July 2018 by Dr Christianne Bruschke, OIE Delegate for the Netherlands Ministry of Agriculture, Nature and Food Quality

I. Situation of highly pathogenic avian influenza

On 17 May 2017, the Netherlands self-declared freedom from highly pathogenic avian influenza in poultry in accordance with the provisions of Article 10.4.3. of the OIE Terrestrial Animal Health Code (the Terrestrial Code).

However, on 8 December 2017, the Netherlands reported an outbreak of highly pathogenic avian influenza (HPAI) type H5N6 in ducks. Two more outbreaks occurred in commercial poultry. These events were reported to the OIE World Animal Health Information System (WAHIS). Infected flocks were culled and the establishments were cleaned and disinfected. The last (third) outbreak was detected on 12 March 2018. The last cleaning and disinfection was on 10 April 2018. Measures were lifted gradually, taking into account the epidemiological situation. All three events were closed, the last on 10 July 2018.

1.1. Control and intensified surveillance for recovery freedom from AI

The Netherlands has carried out a control programme and intensified surveillance to regain its freedom from AI in poultry. In addition, an effective early detection system is in place. The programmes are carried out under the responsibility of the Veterinary Authority.

1.2. Control and intensified surveillance in response to the outbreaks

The Netherlands has carried out a strict control strategy to eradicate the virus and control the three outbreaks. All control measures and all inspections were carried out by the Netherlands Food and Consumer Product Safety Authority (NVWA) (the Veterinary authority). This control strategy included measures mentioned in Directive 2005/94/EC of the European Union, and extra measures taken by the Dutch authorities.

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Restriction areas of 3- and 10-km radius were established where strict measures were applicable. These included movement restrictions between poultry farms, culling of poultry on infected premises and of flocks located up to 1 km around an outbreak, safe destruction of carcasses and contaminated material, cleaning and disinfection of infected premises (three times), and the application of hygienic measures for personnel, trucks, material etc. In the whole country, poultry was kept inside during 4 months (8 December 2017 to 13 April 2018).

Poultry on affected farms were killed in line with Chapter 7.6. of the Terrestrial Code. Carcasses were safely destroyed at the rendering plant in the Netherlands. Approximately 82,400 birds have been culled at the farms where the outbreaks occurred. Approximately 40,500 birds have been pre-emptively culled at farms located up to 1 km around the outbreaks.

Within 2 days after confirmation of HPAI and the culling of the infected flock, all poultry flocks in a 3-km zone around each outbreak were examined clinically. When clinical signs were observed, a minimum of five sick animals were sampled and tested for the presence of virus. Per flock, 30 serum samples were collected and tested for the presence of antibodies against avian influenza. None of the samples tested positive for avian influenza (Table 1), implying that none of the flocks in the 3-km zones were infected with avian influenza viruses.

**Table 1.** Number of samples tested in the 3-km zone surrounding the HPAI outbreaks, Netherlands, 2017-2018.

<table>
<thead>
<tr>
<th>Screening</th>
<th>December 2017</th>
<th>February 2018</th>
<th>March 2018</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-PCR</td>
<td>298</td>
<td>690</td>
<td>490</td>
<td>1478</td>
</tr>
<tr>
<td>ELISA</td>
<td>125</td>
<td>220</td>
<td>120</td>
<td>465</td>
</tr>
</tbody>
</table>

* All tests had negative results for avian influenza

30 days after depopulation of each outbreak, all poultry flocks in the 10-km zones were visited and poultry clinically examined. If no signs of avian influenza were present, the area was declared free from avian influenza and the 3- and 10-km zones were abolished.

This additional surveillance programme did not reveal any additional outbreak of avian influenza. The three outbreaks of HPAI that occurred were all detected due to rapid notification of a clinical suspicion by the farmers.

Tracing of contacts between infected flocks and other poultry farms and identifying possible sources of virus introduction were carried out by the NVWA. Forward and backward tracing was furthermore done by interviewing the farmers about all contacts in the three weeks before the suspicion was reported. In addition, farms that delivered products or poultry were visited by the NVWA to check for presence of avian influenza as well.

The virus strain from each infected flock was tested in the Dutch reference laboratory Wageningen Bioveterinary Research (WBVR). Epidemiological analyses based on RNA sequencing and contact tracing supported the hypothesis that wild birds introduced the virus at the three farms, and no between-flock transmission had occurred.

After the outbreak on 12 March 2018, no further outbreaks were reported or detected by surveillance. The last cleaning and disinfection was done on 10 April 2018.

**II. Surveillance programme and early detection system**

The Netherlands has a thorough surveillance programme carried out annually to rapidly detect new incursions and to prove freedom from avian influenza. The surveillance programme is in accordance with Chapter 1.4. and Articles 10.4.27. to 10.4.33. of the Terrestrial Code.
The programme has the following elements:

2.1. Obligation to report a clinical suspicion of avian influenza

Avian influenza is notifiable in the whole country. Veterinarians and poultry owners/holders should notify clinical signs of highly pathogenic avian influenza to the NVWA immediately. They have to report any occurrence of clinical signs resembling HPAI, or when daily mortality in a shed is higher than 0.5 % during 2 consecutive days. This obligation is embedded in Dutch legislation (Articles 19 and 100 of the Animal Health and welfare Act) and also in European rules (Directive 82/894/EEC)². All suspected cases of avian influenza are investigated immediately by the NVWA. Based on the judgement of the NVWA, samples are collected and sent to the Dutch reference laboratory WBVR in Lelystad for further laboratory examination.

2.2. Awareness programme

An ongoing awareness programme is in place. Information about the avian influenza situation in the Netherlands and neighbouring countries is provided regularly to veterinary practitioners, and representatives of poultry sectors (commercial and hobby flock owners), and other stakeholders like hunters, and the general public. Updates about clinical signs of circulating avian influenza virus strains and susceptible species are also provided. Information about the epidemiological situation is shared between delegates of affected and not yet affected member countries.

2.3. Early warning system

In addition to the obligation of reporting any suspicion, the Netherlands has implemented a procedure in which all farmers are legally obliged to consult a veterinarian when a drop in egg production, and/or feed and water intake occurs (Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoö- en TSE’s)³. If avian influenza cannot be ruled out, samples are sent to WBVR for confirmation or exclusion of avian influenza.

2.4. Serological monitoring

An active surveillance programme in which the susceptible poultry population undergoes regular clinical examination and active surveillance is implemented. Active surveillance is obligatory according to European legislation (Decision 2010/367/EU)⁴. The Netherlands has an intensive serological monitoring system. Serum samples are collected on each poultry farm in the Netherlands on a regular basis. Outdoor layer farming systems are sampled 4 times a year, turkey farms are sampled each production cycle (average production cycle is 4 months), and other flocks are sampled once a year. Per visit, 30 birds are sampled. In total approximately 100,000 tests are carried out annually.

2.5. Wild bird monitoring

Monitoring of wild water birds found dead is carried out and is obligatory due to European legislation. The Dutch government has requested public to notify findings of several dead birds at the same spot. Birds are sent to WBVR and samples are examined for confirmation or exclusion of avian influenza.

III. Measures to maintain freedom

Poultry farmers apply strict biosecurity measures to reduce the probability of introduction of virus from the wild waterfowl populations. In case of increased risk the Minister may impose extra biosecurity measures such as the obligation for duck farmers to cover bedding material. Surveillance is carried out throughout the year to guarantee rapid detection of any incursion.

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³ Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoö- en TSE’s:http://wetten.overheid.nl/BWB0018397/2017-01-01
IV. Conclusions

Considering that:

- prior to the occurrence of new outbreak in December 2017, the Netherlands were free from highly pathogenic avian influenza in poultry (self-declaration 17 May 2017);
- stamping out measures were adopted that included cleaning-up and disinfecting all the affected farms;
- three months have elapsed as stipulated in Article 10.4.3. of the OIE Terrestrial Code since the end of the clean-up and disinfection operations;
- surveillance has been performed in accordance with Articles 10.4.27. to 10.4.33. of the OIE Terrestrial Code during that three-month period.

The OIE Delegate of the Netherlands declares that the country complies with the requirements for a country free from infection with avian influenza in poultry as of 10 July 2018, in accordance with Article 10.4.3. of the OIE Terrestrial Code, and in compliance with the information provided in WAHIS.