Programmes for the eradication, control and monitoring of certain animal diseases and zoonoses

Survey programme for Avian Influenza (AI)

Approved* for 2012 by Commission Decision 2011/807/EU

Estonia

* in accordance with Council Decision 2009/470/EC
1. Identification of the programme

Member state: EESTI

Disease: avian influenza in poultry and wild birds

Request of Community co-financing from beginning of: 2012 to end of 2012

1.1 Contact

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2. Description of the surveillance programme in poultry

2.1 Objectives of surveillance programmes

(max. 32000 chars):

The objectives of the surveillance programmes for avian influenza in poultry are (in accordance with Commissions Decision 2010/367/EU):
1) detecting low pathogenic avian influenza (LPAI) of subtypes H5 and H7 in gallinaceous birds and thereby complementing other existing early detection systems.

2.2 Design, implementation and target population

(max. 32000 chars):

The monitoring and surveillance is based on State Programme on Monitoring and Surveillance of Animal Infectious Diseases. This is an annual programme adopted with the decree of Director General of Veterinary and Food Board on the basis of Animal Infectious Disease Control Act.
In Estonia representative sampling method is used for avian influenza surveillance.
For each poultry production category, the number of poultry holdings to be sampled is defined so as to ensure the identification of at least one infected poultry holding where the prevalence of infected poultry holdings is at least 5 %, with a 95 % confidence interval.

The programme is active in entire Estonia.

2.2.1 Risk based surveillance (RBS)

(max. 32000 chars):

NA

2.2.2 Surveillance based on Representative Sampling

(max. 32000 chars):

The monitoring and surveillance is based on State Programme on Monitoring and Surveillance of Animal Infectious Diseases. This is an annual programme adopted with the decree of Director General of Veterinary and Food Board on the basis of Animal Infectious Disease Control Act. In Estonia representative sampling method is used for avian influenza surveillance.

For each poultry production category, the number of poultry holdings to be sampled is be defined so as to ensure the identification of at least one infected poultry holding where the prevalence of infected poultry holdings is at least 5 %, with a 95 % confidence interval.

The numbers of birds to be sampled in the poultry holding is defined so as to ensure 95 % probability of identifying at least one bird that tests sero-positive for avian influenza, if the prevalence of sero-positive birds is ≥ 30 %.

The sampling of poultry holdings is carried out annually.

3. Target populations

(max. 32000 chars):

Samples are taken from laying hens from commercial holdings.
4. Risk-based surveillance (RBS) method

4.1 Criteria and Risk factors

4.1.1 Criteria and risk factors for virus introduction into poultry holdings due to direct or indirect exposure to wild birds in particular those of identified 'target species'

(max. 32000 chars):

NA

4.1.2 Criteria and risk factors for virus spread within poultry holdings and between poultry holdings, as well as the consequences (impact) of the spread of avian influenza from poultry to poultry and between poultry holdings

(max. 32000 chars):

NA

4.2 Targeting of populations at risk

(max. 32000 chars):

NA
4.3. Targeting of poultry holdings to be sampled

(max. 32000 chars):

NA
5. Poultry holdings to be sampled

5.1 Poultry holdings (except ducks, geese and mallard) to be sampled according to table 1 of Annex 1 to Decision 2010/367/EU

<table>
<thead>
<tr>
<th>Category</th>
<th>NUTS (2) (a)</th>
<th>Total number of holdings</th>
<th>Total number of holdings to be sampled</th>
<th>Number of samples per holding</th>
<th>Total number of tests to be performed per method</th>
<th>Method of laboratory analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
<td>44</td>
<td>800 ELISA test</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18</td>
<td>18</td>
<td></td>
<td>800</td>
<td></td>
</tr>
</tbody>
</table>

(a) Refers to the location of the holding origin. In case NUTS 2 (Nomenclature of Territorial Units for Statistics) cannot be used, coordinates (longitude/latitude) are requested. Please fill-in these values directly in the field.

5.2 Ducks, geese and mallard holdings to be sampled according to table 2 of Annex I to Decision 2010/367/EU
### 6. Frequency and period for testing

(max. 32000 chars):

The sampling of poultry holdings is carried out annually. The sampling is divided throughout the year and is carried out in accordance with State Programme on Monitoring and Surveillance of Animal Infectious Diseases for 2012.

### 7. Laboratory testing

(a)Refers to the location of the holding origin. In case NUTS 2 (Nomenclature of Territorial Units for Statistics) can not be used, coordinates (longitude/latitude) are requested. Please fill-in these values directly in the field.

<table>
<thead>
<tr>
<th>NUTS (2) (a)</th>
<th>Total number of duck and geese holdings</th>
<th>Total number of duck and geese holdings to be sampled</th>
<th>Number of samples per holding</th>
<th>Total number of tests to be performed per method</th>
<th>Method of laboratory analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 NA</td>
<td>X</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Add a new row

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Page 7 sur 18
**Description of the used serological tests:**

Laboratory tests are performed in accordance with the diagnostic procedures for the confirmation and differential diagnostic of avian influenza diagnostic manual (Commission Decision 2006/437 EC) and point 9 of Annex I of Decision 2010/367/EU. An ELISA test is used for the serological analysis. Positive results are confirmed with haemagglutination inhibition tests (for H5 AND H7) using strains supplied by the Community Reference Laboratory in accordance with the guidelines. Virological samples are tested individually by molecular detection (PCR) to determine the presence of H5/H7 virus and to analyze whether the isolate is high or low pathogenic. All avian influenza virus isolates are submitted to the EURIL in accordance with Union legislation. Viruses of the H5/H7 subtype are submitted to the EURIL without delay.

8. **Description of the surveillance programme in wild birds**

8.1 **Objectives of surveillance**

The objective of the surveillance programme for avian influenza in wild birds is the timely detection of HPAI of the subtype H5N1 in wild birds in order to protect poultry in poultry holdings and safeguard veterinary public health.

8.2 **Surveillance design**

For more successful sampling of wild birds we have designed collaboration and coordination between veterinary authorities, epidemiologists, laboratory experts and ornithological institutions. Experience of other countries with the previous surveys has shown that the virus isolation rate is extremely low and therefore sampling is focused on the
Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

8.3 Sampling procedures

Sampling is focused on the wild birds migrating south during autumn and early winter. Samples are taken from different species of wild free-living birds from different parts of country. Waterfowl 70% and shorebirds 20% and other wild birds 10% are the main sampling targets. Swabs containing faeces or carefully collected fresh faeces are taken from wild birds trapped, hunted or found freshly dead.

8.4 Laboratory testing

Laboratory tests are carried out in Estonian Veterinary and Food Laboratory. Laboratory tests are performed in accordance with the diagnostic procedures for the confirmation and differential diagnostic of avian influenza diagnostic manual (Commission Decision 2006/437 EC) and point 4 of Annex I of Decision 2010/367/EU.

The primary diagnostic procedures are based on PCR methods but also include virus isolation by inoculation in SPF embryonated eggs followed by testing of positive findings for H5. In case of a positive finding for H5, an analysis of the cleavage site shall be undertaken as soon as possible to determine whether or not it has a highly pathogenic avian influenza (HPAI) or a low pathogenic avian influenza (LPAI) motif. Where H5 HPAI is confirmed, further analysis is performed to determine the N type.

All avian influenza virus isolates are submitted to the EU RL in accordance with Union legislation. Viruses of the H5/H7 subtype are submitted to the EU RL without delay.
8.5. **WILD BIRDS - Investigation according to the surveillance programme for avian influenza in wild birds set out in Annex II to Decision 2010/367/EU**

<table>
<thead>
<tr>
<th>NUTS (2) code/region (a)</th>
<th>Wild birds to be sampled</th>
<th>Total number of birds to be sampled</th>
<th>Estimated total number of samples to be taken for active surveillance</th>
<th>Estimated total number of samples to be taken for passive surveillance</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE2</td>
<td>143</td>
<td>143</td>
<td>43</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>143</td>
<td>43</td>
<td>100</td>
</tr>
</tbody>
</table>

(a) Refers to the place of collection of birds/samples. In case NUTS 2 (Nomenclature of Territorial Units for Statistics) cannot be used, region as defined in the programme by the Member State is requested. Please fill-in these values directly in the field.

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9. **Description of the epidemiological situation of the disease in poultry during the last five years**

Max 32000 chars:

Avian influenza has not been diagnosed in Estonia during the last five years.

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9.1 **Measures included in the programme for surveillance in poultry**
Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

9.1.1  Designation of the central authority in charge of supervising and coordinating the departments responsible for implementing the programme

(max. 32000 chars):

The Veterinary and Food Board (VFB), a governmental agency carrying out its tasks under the government of the Ministry of Agriculture, functions as a supervising body and sees to that the requirements stipulated by the legislation that governs veterinary, food safety, market regulation, animal welfare and farm animal breeding are followed and executes supervision over fulfilment of these requirements and applies enforcement by state pursuant to the procedures and in the amount prescribed by law. The organization of the Veterinary and Food Board consists of the Central Office and 15 local offices - local veterinary centres in the counties. The main objective of the Central Office is to coordinate supervision while the local offices carry out supervision. The Central Office consists of 5 departments, one of them is the Animal Health, Welfare and Feedingstuffs Department, which consists of Animal Health Office, Animal Welfare Office and Feedingstuffs Office. The Animal Health Office organizes infectious animal diseases control and applies measures for the protection of people from zoonoses; executes supervision over the identification and registration of animals and conducts veterinary controls over the movement of animals; controls the use of medicines and medicated feedingstuffs by veterinarians and animal keepers; arranges the work of the state veterinary service and coordinates and executes supervision over veterinary aid, treatment and prevention; grants approval to and organizes registration of buildings and facilities where animals are kept.

There is an animal health specialist in every local veterinary centre, who is responsible for solving the problems of this field.

In addition to the employees at Central Office and local veterinary centres there are authorised veterinarians who have been granted the authority to check the state of the objects that are within the competence of VFB pursuant to the Veterinary Activities Organisation Act.

9.1.2  System in place for the registration of holdings

(max. 32000 chars):

All holdings with poultry in Estonia are covered by the State Programme on Monitoring and Surveillance of Animal Infectious Diseases and therefore also by the programme and are registered in Estonian Agricultural Register and Information Board (The Regulation of Minister of Agriculture No 88, §1,
9.1.3 Data on vaccination carried out

(max. 32000 chars):

No vaccination has been carried out in Estonia.

10. Description of the epidemiological situation of the disease in wild birds during the last five years

(max. 32000 chars):

Avian influenza has not been reported in Estonia during the last 5 years.

10.1 Measures included in the programme for surveillance in wild birds
10.1.1 Designation of the central authority in charge of supervising and coordinating the departments responsible for implementing the programme

The Veterinary and Food Board (VFB), a governmental agency carrying out its tasks under the government of the Ministry of Agriculture, functions as a supervising body and sees to that the requirements stipulated by the legislation that governs veterinary, food safety, market regulation, animal welfare and farm animal breeding are followed and executes supervision over fulfilment of these requirements and applies enforcement by state pursuant to the procedures and in the amount prescribed by law. The organization of the Veterinary and Food Board consists of the Central Office and 15 local offices - local veterinary centres in the counties. The main objective of the Central Office is to coordinate supervision while the local offices carry out supervision. The Central Office consists of 5 departments, one of them is the Animal Health, Welfare and Feedingstuffs Department, which consists of Animal Health Office, Animal Welfare Office and Feedingstuffs Office. The Animal Health Office organizes infectious animal diseases control and applies measures for the protection of people from zoonoses; executes supervision over the identification and registration of animals and conducts veterinary controls over the movement of animals; controls the use of medicines and medicated feedingstuffs by veterinarians and animal keepers; arranges the work of the state veterinary service and coordinates and executes supervision over veterinary aid, treatment and prevention; grants approval to and organizes registration of buildings and facilities where animals are kept.

There is an animal health specialist in every local veterinary centre, who is responsible for solving the problems of this field.

In addition to the employees at Central Office and local veterinary centres there are authorised veterinarians who have been granted the authority to check the state of the objects that are within the competence of VFB pursuant to the Veterinary Activities Organisation Act.
10.1.2 Description and delimitation of the geographical and administrative areas in which the programme is to be applied

(max. 32000 chars):
The programme is active in all 15 counties.
Please look at attached document.

10.1.3 Estimation of the local and/or migratory wildlife population

(max. 32000 chars):
Estimation of the population of the concerned wildlife population:
Species: Anserinae - 254 000
Species: Anathinae - 450 000
Species: Charadrii - 410 000
Species: Larii - 430 000

11. Measures in place as regards the notification of the disease

(max. 32000 chars):
According to Infectious Animal Disease Control Act supervisory officials, authorised veterinarians, veterinarians, veterinary laboratories and other persons are obliged to promptly notify a local veterinary office of the Veterinary and Food Board about suspicion or a diagnosis of an infectious animal disease subject to notification. The list of notifiable animal infectious diseases is laid down in the Regulation of the Minister of Agriculture No 34 from 25.11.1999. The local veterinary office immediately notifies the Director General of the Veterinary and Food Board (or in his/her absence the Deputy) and the heads of
the neighbouring veterinary centres of the outbreak. When the disease is officially diagnosed the Director General of Veterinary and Food Board notifies OIE, European Commission (via ADNS) and neighbouring countries.

12. Costs

12.1 Detailed analysis of the costs

12.1.1 Poultry

The price of one serological pre-screening ELISA is 3.17 EUR and serological pre-screening HAI test is 2.75 EUR.

12.1.2 Wild birds

The price of one virus isolation test is 57.33 EUR and RT-PCR test is 46.08 EUR.
## 12.2 Summary of the costs

### 12.2.1 Poultry surveillance

<table>
<thead>
<tr>
<th>Methods of laboratory analysis</th>
<th>Number of tests to perform per method</th>
<th>Unitary test cost (per method) in €</th>
<th>Total cost (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA test</td>
<td>800</td>
<td>3.17</td>
<td>2536</td>
</tr>
<tr>
<td>Agar gel immune diffusion test</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Haemagglutination-inhibition-test (HI) for H5 (specify number of tests for H5)</td>
<td>50</td>
<td>2.75</td>
<td>137.5</td>
</tr>
<tr>
<td>Haemagglutination-inhibition-test (HI) for H7 (specify number of tests for H7)</td>
<td>50</td>
<td>2.75</td>
<td>137.5</td>
</tr>
<tr>
<td>Virus isolation test</td>
<td>0</td>
<td>57.33</td>
<td>0</td>
</tr>
<tr>
<td>PCR test</td>
<td>50</td>
<td>46.08</td>
<td>2304</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>950</strong></td>
<td></td>
<td><strong>5 115.00 €</strong></td>
</tr>
</tbody>
</table>

Other measures to be covered

| NA                                                      | 0                                    | 0                                  | 0              |
|                                                        | Add a new row                         |                                    |                |

**Total** 0 0 0 0
### 12.2.2 Wild bird surveillance

<table>
<thead>
<tr>
<th>Methods of laboratory analysis</th>
<th>Number of tests to perform per method</th>
<th>Unitary test cost (per method) in €</th>
<th>Total cost (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemagglutination-inhibition-test (HI) for H5/H7</td>
<td>70</td>
<td>2.75</td>
<td>192.5</td>
</tr>
<tr>
<td>Virus isolation test</td>
<td>50</td>
<td>57.33</td>
<td>2866.5</td>
</tr>
<tr>
<td>PCR test</td>
<td>143</td>
<td>46.08</td>
<td>6589.44</td>
</tr>
<tr>
<td>Other please specify here</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>263</strong></td>
<td><strong>106,16 €</strong></td>
<td><strong>9 648.44 €</strong></td>
</tr>
</tbody>
</table>

**Other measures to be covered**

| NA                                                      | 0                                     | 0                                 | 0               |

**Total**

| 0 | 0.00 € | 0.00 € |
Attachments

**IMPORTANT:**
1. The more files you attach, the longer it takes to upload them.
2. This attachment files should have one of the format listed here: `.zip, .jpg, .jpeg, .tiff, .tif, .xls, .doc, .bmp, .pna`.
3. The total file size of the attached files should not exceed 2 500Kb (≈ 2.5 Mb). You will receive a message while attaching when you try to load too much.
4. **IT CAN TAKE SEVERAL MINUTES TO UPLOAD ALL THE ATTACHED FILES.** Don't interrupt the uploading by closing the pdf and wait until you have received a Submission Number!
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