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

Lithuania

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

Member state: LIETUVA

Disease: avian influenza in poultry and wild birds

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

1.1 Contact

Name: Vidmantas Paulauskas

Phone: + 370 5 2404363

Fax.: + 370 5 2404362

Email: vmt@vet.lt

2. Description of the surveillance programme in poultry

2.1 Objectives of surveillance programmes

(max. 32000 chars):

Objectives of surveys in poultry:
1) Detecting subclinical infections with LPAI of subtypes H5 and H7 complementing early detection systems and preventing mutations of the viruses to HPAI;
2) Detecting infections of LPAI H5 and H7 subtypes in specifically targeted poultry populations at specific risk for infection due to their husbandry system or specific susceptibility species;
3) Provide for that the country is free of infection within the framework of intra-Community and international trade according to OIE rules.

Objectives of surveillance of avian influenza in wild birds:
1) continuation of the surveys of different species of free living migratory birds. Waterfowl and shorebirds are the main sampling targets to assess if they carry LPAI viruses of H5 and H7 subtypes;
2) investigation of sick and dead wild birds and increased mortalities, in particular in selected higher risk species;
3) investigation of dead and living wild birds of other bird species in areas epidemiologically linked to cases of Asian lineage HPAI H5N1 to identify asymptomatic carriers and investigation of the risk that
theses species in close contact with domestic poultry holdings might function as bridge species. Avian influenza are compulsory notifiable diseases in Lithuania. No cases of Avian influenza have been recorded in Lithuania yet.

### 2.2 Design, implementation and target population

(max. 32000 chars):

In Lithuania the State Food and Veterinary Service (SFVS) is the Central Competent Authority with overall responsibilities in relation to food and feed safety, animal health and animal welfare. The Centre for Contingencies and Contagious Diseases is responsible for the coordination and control of all District State Food and Veterinary Services involved in the implementation of this program. This department collects the data, performs statistical analysis and evaluation of the surveillance program and informs the relevant authorities in European Union about the progress of the control and surveillance program. 

The State Food and Veterinary Service (Headquarters) consists of Administration and 11 Departments. Administration is comprised of the Director and 3 his deputies. The director is also Chief Veterinary Inspector of the State. Deputy directors are responsible for particular sectors: Animal Health and Welfare, International relations, Border control, Veterinary Public Health, Food of Non-Animal origin and Finance. There are 11 Departments in the SFVS: Animal Health and Welfare; Veterinary Sanitary and Food; International Affairs; Law and personal; Information and Informatics; Finances and budget; Centre (department) for Contingencies and Contagious Diseases; Strategic Planning and Quality Assessment; Internal Audit Department General. The departments are headed by the Head of Department, who subordinates to the Director.

The institutions that are subordinate to the State Food and Veterinary Service: National Food and Veterinary Risk Assessment Institute; Food and Veterinary Audit Department and State Food and Veterinary Services of 10 counties, 5 cities and 34 districts.

The structure of the SFVS of Lithuania is based on the principle of a pyramid topped by the headquarters at the national level, county, city and district SFVS – at the regional level and supported by laboratories and border inspection posts.

#### 2.2.1 Risk based surveillance (RBS)

(max. 32000 chars):

1. A risk-based surveillance (RBS) shall be implemented as a "passive" surveillance system by laboratory investigation of moribund wild birds or birds found dead and it shall be specifically directed towards water bird species.

2. Wild birds, in particular migratory water birds, that have been shown to be at a higher risk of becoming infected with, and transmitting the HPAI H5N1 virus, the "target species" (TS), shall be specifically targeted.

3. Areas close to the sea, lakes and waterways where birds were found dead; and in particular when these areas are in close proximity to poultry holdings, especially in areas where there is a high density of poultry holdings, shall be targeted. 

4. Close cooperation with epidemiologists and ornithologists and the competent authority for nature conservation shall be ensured in the preparation of the surveillance programme, assisting in species
Identification and optimising sampling adapted to the national situation.

5. If the epidemiological situation for the HPAI H5N1 virus so requires, surveillance activities shall be enhanced by awareness raising and active searching and monitoring for dead or moribund wild birds, in particular for those belonging to TS. This could be triggered by the detection of the HPAI H5N1 virus in poultry and/or wild birds in neighbouring Member States and third countries or in countries which are linked via the movement of migratory wild birds, in particular those of TS, to the Member State concerned. In that case the specific migration patterns and wild bird species, which may vary in different Member States shall be taken into account.

2.2.2 Surveillance based on Representative Sampling

Sampling for serological testing for avian influenza will be stratified throughout the whole territory of Lithuania

3. Target populations

1. Investigation of living, sick or dead wild birds and increased mortalities, in particular in selected higher risk species and in areas epidemiologically linked to cases of Asian lineage HPAI H5N1 to identify asymptomatic carriers and investigation of the risk that these species in close contact with domestic poultry holdings might function as bridge species.

2. Investigation poultry populations at specific risk for infection due to their husbandry system or specific susceptibility species and surveys of different species of free living migratory birds. Waterfowl and shorebirds are the main sampling targets to assess if they carry LPAI viruses of H5 and H7 subtypes

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'
1. The location of the poultry holding in proximity to wet areas, ponds, swamps, lakes, rivers or sea shores where migratory wild water birds may gather.
2. The location of the poultry holding in areas with a high density of migratory wild birds, in particular of those birds that are characterised as ‘target species’ (TS) for HPAI H5N1 detection.
3. The location of poultry holding in proximity to resting and breeding places of migratory wild water birds, in particular where these areas are linked through migratory birds’ movements to areas where HPAI H5N1 is known to occur in wild birds or poultry.
4. Poultry holdings with free range production, or poultry holdings where poultry or other captive birds are kept in the open-air in any premises in which contact with wild birds cannot be sufficiently prevented.
5. Low biosecurity level in the poultry holding, including the method of storage of feed and the use of surface water.

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

1. The presence of more than one poultry species in the same poultry holding, in particular the presence of domestic ducks and geese together with other poultry species.
2. The type of poultry production and the poultry species on the holding for which surveillance data have shown an increased detection rate of avian influenza infection in the Member State, such as duck holdings and poultry intended for re-stocking supplies of game (in particular farmed mallards).
3. The location of the poultry holding in areas with high densities of poultry holdings.
4. Trade patterns, including imports and related intensity of movements, both direct and indirect, of poultry and other factors including vehicles, equipment and persons.
5. The presence of long lived poultry categories and multi-age groups of poultry on the holding (such as layers).

4.2. Targeting of populations at risk

The level of targeting will be reflect the number and local weighting of risk factors present on the
4.3. Targeting of poultry holdings to be sampled

(max. 32000 chars): For each poultry production category, except those of ducks, geese and mallards, the number of poultry holdings will be sampled shall 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.
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: laying hens</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>Lithuania</td>
<td></td>
<td>29</td>
<td>29</td>
<td>4</td>
<td>116</td>
<td>ELISA test</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>29</td>
<td>29</td>
<td></td>
<td>116</td>
<td>X</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.

<table>
<thead>
<tr>
<th>Category: chicken breeders</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>Lithuania</td>
<td></td>
<td>15</td>
<td>15</td>
<td>4</td>
<td>60</td>
<td>ELISA test</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.
### Standard requirements for the submission of surveillance programmes for avian influenza

*version : 2.1*

#### Table of surveillance requirements

<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>Fattening turkeys</td>
<td>Lithuania</td>
<td>13</td>
<td>13</td>
<td>4</td>
<td>20 ELISA test</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>13</td>
<td>13</td>
<td></td>
<td>20</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.

#### Table of surveillance requirements

<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>Free range laying hens</td>
<td>Lithuania</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>20 ELISA test</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5</td>
<td>5</td>
<td></td>
<td>20</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.
### Standard requirements for the submission of surveillance programmes for avian influenza

**Version**: 2.1

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#### 5.2 Ducks, geese and mallard holdings to be sampled according to table 2 of Annex I to Decision 2010/367/EU

<table>
<thead>
<tr>
<th>NUTS (2) (a)</th>
<th>Total number of duck and goose holdings</th>
<th>Total number of duck and goose 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>Lithaunia</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Total**

| Total        | 0                                      | 0                                                   | 0                          | 0                               | X                           |

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**Notes**: (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.

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#### 6. Frequency and period for testing

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7. Laboratory testing

Description of the used serological tests: (max 32000 chars)

Serological testing
The State Food and Veterinary Service has had a serological monitoring programme for avian influenza in place since 1999. The programme is part of the Animal Health Programme, and monitors commercial breeding poultry (chickens, turkeys, ducks and geese) just before they come into lay, and when they move between sites. In addition blood samples from poultry are screened, as are commercial laying flocks prior to export. The serological test will be the HI test, carried out in accordance with Council Directive 92/40/EC.

Virus isolation testing
Virus isolation testing is carried out on all suspicious cases. All viruses isolated will be sent to the CRL, where H5 and H7 subtypes will be subjected to characterisation (IVPI and nucleotide sequencing). The CRL will provide the protocol for sending isolates to the CRL, and the reporting tables for collection of survey data.

8. Description of the surveillance programme in wild birds

8.1 Objectives of surveillance
A total of 600 samples will be taken from birds in wildlife sanctuaries of international interest and game clubs. Migrating birds will be sampled during the early spring/early summer and autumn/early winter and will target mallard ducks and “first year” birds, where possible. Active surveillance on living or hunted birds shall target the population of wild bird species identified as presenting a higher risk. Passive surveillance on wild birds found dead shall primarily target the occurrence of abnormal mortality or significant disease outbreaks in wild birds species identified as presenting a higher risk and other wild birds living in contact with them. The occurrence of mortality in several species at the same site shall be an additional factor to be considered.

8.2 Surveillance design

Samples will be taken by the official veterinarians of the territorial State Food and Veterinary Services. Wildlife inspectors from the National Parks and Wildlife Service, officials from gun clubs and laboratory staff will participate in the sampling programme by reporting abnormal death of the bird.

8.3 Sampling procedures

Samples will be taken by the official veterinarians of the territorial State Food and Veterinary Services. Wildlife inspectors from the National Parks and Wildlife Service, officials from gun clubs and laboratory staff will participate in the sampling programme by reporting abnormal death of the bird.
8.4 Laboratory testing

Testing of samples shall be carried out at National Food and Veterinary Risk Assessment Institute, based at Kairiūkščio 10, Vilnius, is the reference laboratory for avian and mammalian influenza. It also has the capacity and expertise for serological identification of antibodies to these viruses in the different species. All positive serological findings shall be confirmed by the National Food and Veterinary Risk Assessment Institute by a haemagglutination-inhibition test.

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>Lithuania</td>
<td>700</td>
<td>700</td>
<td>600</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a)Refers to the place of collection of birds/samples. In case NUTS2 (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.

9. Description of the epidemiological situation of the disease in poultry during the last five years
No cases of Avian influenza have been recorded in Lithuania during the last five years.

9.1   Measures included in the programme for surveillance in poultry

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

The Centre for Contingencies and Contagious Diseases is responsible for the coordination and control of all District State Food and Veterinary Services involved in the implementation of this program.

9.1.2   System in place for the registration of holdings

The animal holding registers is done according to Commission Regulation (EC) No 2629/97 of 29 December 1997 laying down detailed rules for the implementation of Council Regulation (EC)No 820/97 as holding registers.
9.1.3 Data on vaccination carried out

No vaccination against AI has been carried out.

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

No cases of Avian influenza have been recorded in Lithuania during the last five years.

10.1 Measures included in the programme for surveillance in wild birds
Passive surveillance of sick and dead wild birds shall be targeted on:
1. Areas where increased incidence of morbidity and mortality in wild birds occurs.
2. Areas close to the sea, lakes and waterways where birds were found dead; and in particular when these areas are in proximity to domestic poultry farms;
3. Birds belonging to identified “higher risk” species listed and other wild birds living in close proximity with them.

Active surveillance on living or hunted birds shall be targeted on:
1. Migratory birds belonging to the order of Anseriformes (water fowl) and Charidriformes (shorebirds and gulls); in the territory of Lithuania and mixing of high number of migratory birds involving different species and in particular when these areas are in proximity to domestic poultry farms;
2. A selection of higher risk species

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

The Centre for Contingencies and Contagious Diseases is responsible for the coordination and control of all District State Food and Veterinary Services involved in the implementation of this program.

10.1.2 Description and delimitation of the geographical and administrative areas in which the programme is to be applied
Avian influenza programme will be implemented in whole territory of the Republic of Lithuania.

10.1.3 Estimation of the local and/or migratory wildlife population


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

12. Costs

12.1 Detailed analysis of the costs

12.1.1 Poultry

Sampling shall cover a period appropriate to production periods for each poultry category. Broilers will not be included in this survey, as their short life means that they are unlikely to sero-convert before they are slaughtered. Samplers will be asked to take 4 samples from 62 house (ELISA 248x2 EUR). All positive ELISA shall be confirmed by the National Food and Veterinary Risk Assessment Institute by a virus isolation and molecular detection test (PCR) and a haemagglutination-inhibition test. Sampling costs per farm 20 EUR (248 x20 EUR).

12.1.2 Wild birds

100 dead birds will be investigated under the programme of passive surveillance and 600 birds will be hunted and investigated under the programme of active surveillance in the territory of the Republic of Lithuania. A total of 700 samples will be taken from birds in wildlife sanctuaries of international interest and game clubs. Migrating birds will be sampled during the early spring/early summer and autumn/early winter and will target mallard ducks and “first year” birds, where possible. The occurrence of mortality in several species at the same site shall be an additional factor to be considered. Wild birds
found dead or shot shall be sampled for virus isolation, molecular detection (PCR 700 samples x 41 EUR) and HI test for H5/H7 (double HI) will be applied. Sampling costs 700x20 eur.
### Summary of the costs

#### 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>248</td>
<td>2</td>
<td>496</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>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Haemagglutination-inhibition-test (HI) for H7 (specify number of tests for H7)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Virus isolation test</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PCR test</td>
<td>32</td>
<td>41</td>
<td>1312</td>
</tr>
</tbody>
</table>

**Total** 280 1 808,00 €

#### Other measures to be covered

<table>
<thead>
<tr>
<th></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>Sampling</td>
<td>216</td>
<td>20</td>
<td>4320</td>
</tr>
</tbody>
</table>

**Total** 20 4 320,00 €
### 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>150</td>
<td>24</td>
<td>3600</td>
</tr>
<tr>
<td>Virus isolation test</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PCR test</td>
<td>700</td>
<td>41</td>
<td>28700</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>850</strong></td>
<td><strong>65,00 €</strong></td>
<td><strong>32 300,00 €</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other measures to be covered</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling</td>
<td>700</td>
<td>20</td>
<td>14000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>700</strong></td>
<td><strong>20,00 €</strong></td>
<td><strong>14 000,00 €</strong></td>
</tr>
</tbody>
</table>

**Add a new row**
Attachments

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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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