



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL

Unit 04 - Veterinary Control Programmes

SANCO/12959/2010

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

**Survey programme for Avian Influenza in
poultry and wild birds**

Approved* for 2011 by Commission Decision 2010/712/EU

Slovakia

* in accordance with Council Decision 2009/470/EC

**Program for Eradication : ANNEX 4**

Submission number	1281608177784-374
Submission date	12/08/2010 12:16:18
Country Geographical English Name	Slovakia

1. Identification of the programme	
Country Geographical English Name	Slovakia
Disease	avian influenza in poultry and wild birds
Request co-financing from	2011
Request co-financing to	2011
1.1 Contact	
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2. Description of the surveillance programme in poultry**2.1 Objectives, general requirements and criteria**

Active surveillance for:

- (a) low pathogenic avian influenza (LPAI) of subtypes H5 and H7 in gallinaceous birds (namely chickens, turkeys, guinea fowl, pheasants, partridges and quails) and ratites thereby complementing other existing early detection systems;
- (b) LPAI of subtypes H5 and H7 and highly pathogenic avian influenza (HPAI) in domestic waterfowl (namely ducks, geese and mallards for re-stocking supplies of game);

General requirements and criteria

- This survey shall be implementing from 1 January 2011 to 31 December 2011.
- Sampling shall cover a period appropriate to production periods for each poultry category as required.

2.2 Design and implementation

1. All positive findings shall be retrospectively investigated at the holding and the conclusions of this investigation shall be reported to the Commission and the CRL.
2. In the Slovak Republic surveillance is based on a representative sampling scheme.
2. The following target populations are included into the seroprevalence survey: laying hens, free range laying hens, chicken breeders, turkey breeders, duck breeders, geese breeders, fattening turkeys, fattening ducks, fattening geese, farmed game birds (gallinaceous) focusing on adult birds such as breeding birds, farmed game birds (waterfowl), ratites. Broiler and backyard flocks may also be included to surveillance in the specified exceptional circumstances.
3. The sampling shall be performed in the regions of the Slovak Republic (in territories administered by the District Veterinary and Food Administrations) in such a manner that the regions might be supposed as representative ones for the whole Slovak Republic, taking into account the following:
 - o Samples shall be taken at the slaughterhouse
 - o In case that during the year the poultry shall not be moved from the holding to slaughter or it shall be slaughtered out the territory of the SR, the blood samples shall be taken directly in the holding.
 - o the number of holdings to be sampled (excluding ducks, geese and mallard holdings); that number shall be defined so as to ensure the identification of at least one infected holding if the prevalence of infected holdings is at least 5%, with a 95% confidence interval; (see Table 1)
 - o the number of duck, geese and mallard holdings to be sampled shall be defined to ensure the identification of at least one

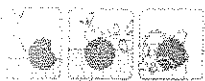
2.2 Design and implementation

infected holding if the prevalence of infected holdings is at least 5%, with a 99% confidence interval (see Table 2);
o the time period for sampling shall coincide with seasonal production.

o the number of birds sampled from each holding except ducks, geese and mallards shall be defined so as to ensure 95% probability of identifying at least one positive bird if the prevalence of sero-positive birds is =30%. Blood samples for serological examination shall be collected from all poultry production categories and poultry species from at least 5 to 10 birds (except ducks, geese and mallards) per poultry holding, and from the different sheds, where more than one shed is present on a holding. In case of several sheds, samples shall be taken from at least five birds per shed.

o The numbers of ducks, geese and mallards to be sampled in the poultry holding shall be defined so as to ensure 95 % probability of identifying at least one bird that tests sero-positive for avian influenza where the prevalence of sero-positive birds is = 30 %. Twenty blood samples shall be taken in duck, geese and mallard holdings.

o Sampling for virological testing for avian influenza shall not be used as an alternative to serological testing and must be performed solely within the framework of investigations to follow-up serological positive testing results for avian influenza.



2.2.1 Poultry holdings (except ducks and geese) to be sampled

Category	NUTS (2) (a)	Total number of holdings	Total number of holdings to be sampled	Number of samples per holding	Total number of tests to be performed per method	Method of laboratory analysis
broilers	SK01 – territory of Bratislava	4	1	5	5	HI for H5/H7
	SK02 – territory of west Slovakia	61	6	5	30	HI for H5/H7
	SK03 – territory of middle Slovakia	45	4	5	20	HI for H5/H7
	SK04 – territory of east Slovakia	38	3	5	15	HI for H5/H7
	SK04 – territory of east Slovakia	148	14	20	70	
fattening turkeys	SK01 – territory of Bratislava	0	0	5	0	HI for H5/H7
	SK02 – territory of west Slovakia	5	5	5	25	HI for H5/H7
	SK03 – territory of middle Slovakia	3	3	5	15	HI for H5/H7
	SK04 – territory of east Slovakia	2	2	5	10	HI for H5/H7
	SK04 – territory of east Slovakia	10	10	20	50	
chicken breeders	SK01 – territory of Bratislava	3	3	5	15	HI for H5/H7
	SK02 – territory of west Slovakia	22	22	5	110	HI for H5/H7
	SK03 – territory of middle Slovakia	5	5	5	25	HI for H5/H7
	SK04 – territory of east Slovakia	18	18	5	90	HI for H5/H7
	SK04 – territory of east Slovakia	48	48	20	240	
turkey breeders	SK01 – territory of Bratislava	0	0	5	0	HI for H5/H7
	SK02 – territory of west Slovakia	4	4	5	20	HI for H5/H7
	SK03 – territory of middle Slovakia	0	0	5	0	HI for H5/H7
	SK04 – territory of east Slovakia	0	0	5	0	HI for H5/H7
	SK04 – territory of east Slovakia	4	4	20	20	
laying hens	SK01 – territory of Bratislava	4	4	5	20	HI for H5/H7
	SK02 – territory of west Slovakia	13	13	5	65	HI for H5/H7
	SK03 – territory of middle Slovakia	17	17	5	85	HI for H5/H7
	SK04 – territory of east Slovakia	16	16	5	80	HI for H5/H7
	SK04 – territory of east Slovakia	50	50	20	250	

2.2.1 Poultry holdings (except ducks and geese) to be sampled						
Category	NUTS (2) (a)	Total number of holdings	Total number of holdings to be sampled	Number of samples per holding	Total number of tests to be performed per method	Method of laboratory analysis
free range laying hens	SK01 – territory of Bratislava	0	0	5	0	HI for H5/H7
	SK02 – territory of west Slovakia	0	0	5	0	HI for H5/H7
	SK03 – territory of middle Slovakia	0	0	5	0	HI for H5/H7
	SK04 – territory of east Slovakia	0	0	5	0	HI for H5/H7
	SK04 – territory of east Slovakia	0	0	20	0	
ratites	SK01 – territory of Bratislava	0	0	5	0	HI for H5/H7
	SK02 – territory of west Slovakia	3	3	5	15	HI for H5/H7
	SK03 – territory of middle Slovakia	1	1	5	5	HI for H5/H7
	SK04 – territory of east Slovakia	13	13	5	65	HI for H5/H7
	SK04 – territory of east Slovakia	17	17	20	85	
farmed feathered game	SK01 – territory of Bratislava	3	3	20	60	HI for H5/H7
	SK02 – territory of west Slovakia	21	21	5	105	HI for H5/H7
	SK03 – territory of middle Slovakia	6	6	20	120	HI for H5/H7
	SK04 – territory of east Slovakia	5	5	5	25	HI for H5/H7
	SK04 – territory of east Slovakia	35	35	50	310	
backyard flocks	SK01 – territory of Bratislava	6,000	2	5	20	PCR/HI for H5/H7
	SK02 – territory of west Slovakia	25,000	5	5	50	PCR/HI for H5/H7
	SK03 – territory of middle Slovakia	10,000	5	5	50	PCR/HI for H5/H7
	SK04 – territory of east Slovakia	13,000	5	5	50	PCR/HI for H5/H7
	SK04 – territory of east Slovakia	54,000	17	20	170	
	Total	54,312	195	210	1,195	

**2.2.2 Duck and geese holdings to be sampled according to point C of Annex I to Decision 2007/268/EC
Serological investigation**

NUTS (2) (a)	Total number of duck and geese holdings	Total number of duck and geese holdings to be sampled	Number of samples per holding	Total number of tests to be performed per method	Method of laboratory analysis
SK01 – territory of Bratislava	1	1	20	20	HI for H5/H7
SK02 – territory of west Slovakia	13	13	20	260	HI for H5/H7
SK03 – territory of middle Slovakia	1	1	20	20	HI for H5/H7
SK04 – territory of east Slovakia	0	0	20	0	HI for H5/H7
Total	15	15	80	300	

2.3 Laboratory testing: description of the laboratory tests used

- Laboratory tests shall be carried out in accordance with the avian influenza Diagnostic Manual (Commission Decision 2006/437/EC) laying down the procedures for the confirmation and differential diagnosis of avian influenza (including examination of sera from ducks and geese by haemagglutination inhibition test).
 - Laboratory diagnostics is performed by the National Reference Laboratory – The State Veterinary Institute in Zvolen. The National Reference Laboratory shall submit all results of serological and cultivation testing to the State Veterinary and Food Administration of the Slovak Republic and next the results shall be submitted to the Community Reference Laboratory (CRL) for their comparison and information exchange and flow.
 - All avian influenza virus isolates shall be submitted to the CRL in accordance with Community legislation. Viruses of H5/H7 subtype shall be submitted without delay and shall be subjected to the standard characterisation tests (nucleotide sequencing/IVPI) according to the avian influenza Diagnostic Manual.
 - All results shall be sent to the Community Reference Laboratory for Avian Influenza (CRL) for collation. A good flow of information must be ensured. The CRL shall provide technical support and keep an enlarged stock of diagnostic reagents.
 - The National Reference Laboratory shall submit to the CRL, H5 or H7 positive sera collected from Anseriformes in order that an archive be established to facilitate future test development.
 - All positive serological findings shall be confirmed by the National Laboratories for avian influenza by a haemagglutination – inhibition test, using designated strains supplied by the Community Reference Laboratory for Avian Influenza:
 - for H5 (a) Initial test using teal/England/7894/06 (H5N3)
 - (b) Test all positives with Chicken/Scotland/59 (H5N1) to eliminate N3 cross reactive antibodies.
 - for H7 (a) Initial test using Turkey/England/647/77 (H7N7)
 - (b) Test all positives with African Starling/983/79 (H7N1) to eliminate N7 cross reactive antibodies.
- All positive serological findings must be followed up at the poultry holding by epidemiological investigations and further sampling for testing by virological methods in order to determine, if active infection of avian influenza virus is present on the poultry holding. The conclusions of all those investigations shall be reported to the Commission.

3. Description of the surveillance programme in wild birds

3.1 Objectives, general requirements and criteria

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. Surveillance shall be implemented from 1 January 2011 to 31 December 2011.

3.2 Design and implementation

3.2.1 WILD BIRDS - Investigation according to the surveillance programme for avian influenza in wild birds set out in Annex II to Decision 2007/268/EC				
NUTS (2) code/region (a)	Wild birds to be sampled	Total number of birds to be sampled	Estimated total number of samples to be taken for active surveillance	Estimated total number of samples to be taken for passive surveillance
SK01 – territory of Bratislava	higher risk species listed in table 3 bridge species listed in table 4 other species found dead	100	50	50
SK02 – territory of west Slovakia	higher risk species listed in table 3 bridge species listed in table 4 other species found dead	100	50	50
SK03 – territory of middle Slovakia	higher risk species listed in table 3 bridge species listed in table 4 other species found dead	100	50	50
SK04 – territory of east Slovakia	higher risk species listed in table 3 bridge species listed in table 4 other species found dead	100	50	50
Total	#SYNTAX	400	200	200

3.3 Laboratory testing: description of the laboratory tests used

- Laboratory tests shall be carried out in accordance with the avian influenza diagnostic manual (Commission Decision 2006/437/EC) laying down the procedures for the confirmation and differential diagnostic of avian influenza.
- Laboratory diagnostics is performed by the National Reference Laboratory – The State Veterinary Institute in Zvolen. The National Reference Laboratory shall submit all results of serological and cultivation testing to the State Veterinary and Food Administration of the Slovak Republic and next the results shall be submitted to the Community Reference Laboratory (CRL) for their comparison and information exchange and flow.
- All results shall be sent to the Community Reference Laboratory for Avian Influenza (CRL) for collation. A good flow of information must be ensured. The CRL shall provide technical support and keep an enlarged stock of diagnostic reagents.
- All avian influenza virus isolates of cases in wild birds shall be submitted to the CRL in accordance with Community legislation, unless derogation according to paragraph 4 of Chapter V under Differential diagnosis in the avian influenza Diagnostic Manual laid down in Commission Decision 2006/437/EC is granted. Viruses of H5/H7 subtype shall be submitted without delay and shall be subjected to the standard characterisation tests (nucleotide sequencing/IVPI) according to the said avian influenza Diagnostic Manual.

3.3 Laboratory testing: description of the laboratory tests used

- All samples collected in the surveillance for avian influenza in wild birds shall be tested as soon as possible by molecular techniques if available and according to the diagnostic manual (Commission Decision 2006/437/EC). These tests shall only be carried out in laboratories able to guarantee quality assurance and using methods recognised by the CRL for avian influenza. In addition, methods used must be produced acceptable results in the most recent comparative ring test of national laboratories. Initial screening using M gene PCR is recommended, with rapid testing of positives for H5 (but within 2 weeks) and in case of a positive finding analysis of the cleavage site must 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. If H5 HPAI is confirmed further analysis to determine the N type must be done rapidly (even this can only provide evidence eliminating N1).
- At the laboratory, pooling of up to five samples taken from the same species of wild birds collected at the same site and same time may be permitted when it can be ensured that, in case of a positive finding, the individual samples can be identified and retested.
- Serological surveillance shall not be applied for avian influenza investigations in wild birds because serological methods cannot distinguish between HP and LP strains and antibody findings do not allow inference in relation to the likely location where wild birds might have become infected. However, serological surveillance might be important to study in which resident or migrating bird species H5/H7 viruses are/were prevalent (or endemic). Such analysis shall only be performed by specialized laboratories using a carefully selected panel of antigens to ensure the detection of haemagglutinin specific antibodies (i.e. to eliminate the possibility of interference from N specific antibodies).

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

2005

Number of samples investigated is 1849. All the samples were negative.

2006

Number of samples investigated is 826. All the samples were negative.

2007

Number of samples investigated is 2351. 1 sample from geese holding was positive for H4N6.

2008

Number of samples investigated is 1607. All the samples were negative.

2009

Number of samples investigated is 1651. All the samples were negative.

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

Central authority charged with supervising and coordinating the department responsible for implementing the programme is the State Veterinary and Food Administration of the Slovak Republic.

Departments responsible for implementing the programme are Regional (8) and District (40) Veterinary and Food Administrations.

Ministry of Agriculture of the SR

- is a central authority of state administration
- shall approve the Survey Plan for Avian Influenza

Forestry section shall

- prepare a legislative frame;
- make a conception of waterfowl breeding and hunting with emphasis on the avian influenza and requirements coming from the agricultural animal production after a new Act on Hunting in the implementary regulations shall enter into force.

State Veterinary and Food Administration of the SR shall

- propose a survey plan for disease;
- evaluate monitoring in the SR;
- take measures based on the development of disease situation in the SR;
- submit reports to the EC;
- propose a budget for the survey plan execution to the Minister of Agriculture.

Regional Veterinary and Food Administration shall

- evaluate monitoring and disease situation in the region;
- control over observance of ordered measures;
- methodically direct.

District Veterinary and Food Administration shall

- methodically direct hunters regarding the sampling and sending of specimens;
- evaluate monitoring and disease situation in the district;

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

- pay out financial reimbursements.
- State veterinary Institute Zvolen shall
- perform laboratory diagnostics;
 - evaluate and process data of investigations in the SR;
 - provide professional services.
- Slovak Hunting Association shall
- co-operate with state administration authorities.

4.1.2 System in place for the registration of holdings

According to § 7, para 2, latter d) and § 39 para 10, of the Act No. 39/2007 Coll. on veterinary care.

4.1.3 Data on vaccination carried out

No vaccination performed in previous years.

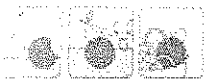
5. Description of the epidemiological situation of the disease in wild birds during the last five years

- 2005 - Total investigated 328 samples. All samples were negative.
- 2006 - Total investigated 1769 samples. 2 samples were positive for H5N1.
- 2007 - Total investigated 193 samples. All samples were negative.
- 2008 - Total investigated 129 samples. All samples were negative.
- 2009 - Total investigated 68 samples. All samples were negative.

5.1 Measures included in the programme for surveillance in wild birds

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

- Central authority charged with supervising and coordinating the department responsible for implementing the programme is the State Veterinary and Food Administration of the Slovak Republic.
- Departments responsible for implementing the programme are Regional (8) and District (40) Veterinary and Food Administrations.
- Ministry of Agriculture of the SR
- is a central authority of state administration
 - shall approve the Survey Plan for Avian Influenza
- Forestry section shall
- prepare a legislative frame;
 - make a conception of waterfowl breeding and hunting with emphasis on the avian influenza and requirements coming from the agricultural animal production after a new Act on Hunting in the implementary regulations shall enter into force.
- State Veterinary and Food Administration of the SR shall
- propose a survey plan for disease;
 - evaluate monitoring in the SR;
 - take measures based on the development of disease situation in the SR;
 - submit reports to the EC;
 - propose a budget for the survey plan execution to the Minister of Agriculture.
- Regional Veterinary and Food Administration shall
- evaluate monitoring and disease situation in the region;
 - control over observance of ordered measures;
 - methodically direct.
- District Veterinary and Food Administration shall
- methodically direct hunters regarding the sampling and sending of specimens;
 - evaluate monitoring and disease situation in the district;
 - pay out financial reimbursements.
- State veterinary Institute Zvolen shall
- perform laboratory diagnostics;
 - evaluate and process data of investigations in the SR;
 - provide professional services.
- Slovak Hunting Association shall
- co-operate with state administration authorities.



5.1 Measures included in the programme for surveillance in wild birds

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

5.1.2 Description and delimitation of the geographical and administrative areas in which the programme is to be applied

The programme will be carried out on the all territory of the Slovak Republic.

5.1.3 Estimation of the local and/or migratory wildlife population

On the basis of data from Faunistic Commission of the Slovak Ornithological Society in 2009, 349 species of wild birds were occurred in the Slovak Republic, from which 222 were local species and 127 migratory wild birds.

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

In case of suspicion or confirmation of avian influenza in poultry and in wild birds, measures will be applied according to National Contingency Plan for case of suspicion and occurrence of avian influenza in the territory of the Slovak Republic, which legal basis is following:

- Act No 39/2007 Coll. on veterinary care
- Ordinance of the Government of the Slovak Republic No 367/2007 Coll. on measures for avian influenza control (transposed Council Directive 2005/94/EC)
- Commission Decision No 2006/437/EC of 4 August 2006 approving a Diagnostic Manual for avian influenza as provided for in Council Directive No 2005/94/EC
- Commission Decision No 2006/415/EC of 14 June 2006 concerning certain protection measures in relation to highly pathogenic avian influenza of the subtype H5N1 in poultry in Community and repealing Decision 2006/135/EC
- Commission Decision No 2006/563/EC of 11 August 2006 concerning certain protection measures in relation to highly pathogenic avian influenza of subtype H5N1 in wild birds in the Community and repealing Decision 2006/115/EC
- Commission Decision No 2007/119/EC of 16 February 2007 amending Decisions 2006/415/EC, 2006/416/EC and 2006/563/EC as regards the identification mark to be applied to fresh poultry meat

7. Costs

7.1.1 Poultry

- From poultry holdings have to be taken blood samples, from each holding 5- 10 samples and from holdings of ducks, geese and mallards 20 samples. Blood samples have to be investigate by haemagglutination – inhibition test for H5 and for H7.
- In case of suspicion of infection of avian influenza in poultry holdings (drop in feed and water intake higher than 20%, drop in egg production higher than 5%, mortality rate higher than 3% in a week, any clinical sign or post – mortem lesion suggesting infection of avian influenza) have to be taken blood samples and dead animals (in case of high mortality). Dead animals have to be investigate by PCR test or virus isolation test. Estimated total cost for surveillance of avian influenza in poultry in 2011 is 20 533,35 €.

7.1.2 Wild birds

- Samples from wild birds have to be investigate by PCR test, which unitary cost 66,39 €. We estimate that in 2011, the NRL will sampled 400 wild birds (summary for active and passive surveillance). Estimated total cost for surveillance of avian influenza in wild birds in 2011 is 26 556 €.

7.2 Summary of the costs

7.2.1 Poultry surveillance

Methods of laboratory analysis	Number of tests to perform per method	Unitary test cost (per method) in €	Total cost (€)
ELISA test	0	0.00	0.00
agar gel immune diffusion test	0	0.00	0.00
Haemagglutination-inhibition-test (HI) for H5 (specify number of tests for H5)	1,495	4.98	7,445.10
Haemagglutination-inhibition-test (HI) for H7 (specify number of tests for H7)	1,495	4.98	7,445.10
Virus isolation test	0	0.00	0.00
PCR test	85	66.39	5,643.15
Sampling	0	0.00	0.00
Total	3,075	76.35	20,533.35

7.2.2 Wild bird surveillance

Methods of laboratory analysis	Number of tests to perform per method	Unitary test cost (per method) in €	Total cost (€)
Haemagglutination-inhibition-test (HI) for H5/H7	0	0.00	0.00
Virus isolation test	0	0.00	0.00
PCR test	400	66.39	26,556.00
Other please specify here	0	0.00	0.00
Sampling	0	0.00	0.00
Total	400	66.39	26,556.00