



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL

Unit G5 - Veterinary Programmes

SANCO/10773/2012

*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

Greece

* in accordance with Council Decision 2009/470/EC

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

1. Identification of the programme

Member state : ELLADA

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 surveillance programme in poultry to be carried out in Greece in 2012 takes into account the guidelines set out in Commission decision 2010/367/EU adjusted to the most recent national data regarding the number and location of poultry holdings, production type and poultry population per category.

The objective of this programme is to establish an active serological survey throughout Greece in order to secure early detection of circulating avian influenza virus and appliance of all necessary measures in accordance with Directive 2005/94/EC. It aims at detecting:

- a) low pathogenic avian influenza (LPAI) of subtypes H5 and H7 in gallinaceous birds and ratites thereby complementing other existing early detection systems and subsequently preventing possible mutation of these viruses to highly pathogenic avian influenza (HPAI);
- b) LPAI of subtypes H5 and H7 and HPAI in domestic waterfowl

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

2.2 Design, implementation and target population

(max. 32000 chars) :

Surveillance shall be based on representative sampling, while sampling and serological testing in poultry holdings shall be carried out in order to detect antibodies to avian influenza as defined in Directive 2005/94/EC

In the framework of the survey programme, blood samples from commercial flocks of gallinaceous birds are scheduled to be collected from their sheds and/or from abattoirs during slaughtering, while effort will be made for the surveillance to be extended to backyard duck or geese flocks kept as backyard in the entire country and to holdings rearing game birds.

In order to optimise efficiency and avoid additional unnecessary entry of persons into poultry holdings sampling should whenever possible be combined with sampling for other purposes.

All kinds of samples will be packaged and sent by the Veterinary Directorate or institution responsible, to the designated laboratories. Four state veterinary laboratories will be involved:

- i) The Avian Pathology Dept. of the Center of Institutions of Thessalonica (80, 26th October Street, 54627 Thessalonica) which is designated as the Greek National Reference Laboratory for Avian Influenza and has the responsibilities that are foreseen in Council Directive 2005/94/EE will be acting as coordinator for the laboratory tests to be performed and will accept samples from the areas of Thrace and Macedonia.
- ii) The Avian Pathology Dept. of the Center of Institutions of Athens (26, Neapoleos Street, 15310 Agia Paraskevi, Athens) which is designated as the Greek National Laboratory for Newcastle Disease, which will accept samples from Peloponnesus and the islands of Aegean Sea.
- iii) The State Veterinary Laboratory of Chalkis, which will accept samples from Center Greece and Evia island.
- iv) The State Veterinary Laboratory of Ioannina, which will accept samples from the area of Epirus (north-western Greece).

Every Prefecture Veterinary Directorate or every local veterinary office, upon dispatching samples to the relevant laboratory will in written notify the relevant State Veterinary Laboratory and General Veterinary Directorate of Ministry of Rural Development and Food about :

- number and kind of samples sent
- species and number of farms/birds sampled-location-owner
- identification number of holding sampled
- date and means of dispatch

The laboratories upon obtaining the results from the tests they will perform, will in written inform the NRL and the General Veterinary Directorate of the Ministry of Agriculture, mentioning:

- protocol number of dispatch-relevant veterinary authority
- number and kind of samples examined
- species and number of farms/birds sampled-location-owner
- laboratory tests used and results
- identification number of holding tested positive

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

All necessary measures shall be applied according to Community legislation whenever laboratory results and epidemiological data set the suspicion or confirmation of either HPAI or LPAI.

Positive and negative results of surveillance of poultry will be submitted to the Commission of the EU by the General Veterinary Directorate of the Ministry of Rural Development and Food through the Commission on-line system. Two 6-month period reports will be submitted by forwarding them within a period of four weeks following the end of the months covered by the report.

2.2.1 Risk based surveillance (RBS)

(max. 32000 chars) :

Surveillance will not be risk-based.

2.2.2 Surveillance based on Representative Sampling

(max. 32000 chars) :

Surveillance shall be carried out according to a representative sampling scheme. Therefore, the number of holdings to be sampled per poultry category is in accordance to Tables 1 and 2 of point 5 of Annex I to Commission Decision 2010/367/EU and serological sampling is stratified throughout the whole territory of Greece.

According to current data, broiler type holdings are mainly concentrated in the Northwest area of the country and especially in Epirus territory (Prefecture of Ioannina and Prefecture of Arta), while a relatively large farm number of this type exists also in the Prefectures of Evia, Attica, Viotia, Arkadia, Pieria, and Thessaloniki. Holdings rearing laying hens are mainly located in the Prefectures of Attica and Thessaloniki, followed by the Prefectures of Viotia, Evros, Korinthia and Argolida. Reproductive flocks are reared mainly in Epirus and Evia and less in Attica and Viotia Prefectures. Very small number or no Gallus gallus farms exist in the other Prefectures. Turkey farms are located mainly in Northern and Central Greece, while ostrich farms are more evenly distributed throughout the whole country.

Based on the number and geographical distribution of poultry holdings in Greece, representative sampling is designed as follows:

I) Gallus gallus farming

The implementation of the Programme for Gallus gallus farms will take place in 10 administrative

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

districts (NUT 2 code GR 11, GR 12, GR 14, GR 21, GR 23, GR 24, GR 25, GR 30, GR 42, and GR 43).

The local veterinary authorities will collect at least 10 blood-samples of 10 ml each per holding, and from the different sheds, if more than one shed is present on a holding. In case of several sheds the sample size per holding shall increase to 5 blood samples per shed. Besides their sheds, birds from a holding can be sampled in abattoirs during slaughtering.

For *Gallus gallus* species the number of farms to be sampled will be according to Table 1 of point 5 of Annex I to Commission Decision 2010/367/EU.

Almost all categories of farmed poultry will be sampled (reproductive poultry of all farmed species, fattening poultry "at risk", layers upon finishing their productive period and farms rearing chickens for use as backyard). Efforts will be made for the even distribution of sampled holdings throughout the territory of Greece and the 12 month duration of the programme.

a) Chicken breeders

Having in mind that according to most recent data there are 110 farms of chicken breeders in whole Greece, the total minimum number of farms for this species to be sampled is 53.

b) Laying Hens

Taking into account that the estimated number of laying hen farms is 408, 60 farms are scheduled to be sampled.

c) Free range/organic laying hens

Since there are 13 farms of free range/organic laying hens throughout Greece, all of them will be included in the sampling plan of this year's survey programme.

d) Free range/organic broilers

From a total of 48 free range/organic broiler farms in Greece, 35 shall be sampled, given the increased risk for this poultry category and the fact that the vast majority of holdings are located in the same geographical area with reproductive flocks.

e) Farms rearing poultry (mainly chicken) for use as backyard

In Greece there are 118 commercial farms producing chicken sold for use as backyard. 53 of them are planned to be sampled.

II) Turkey farming

The implementation of the Programme for fattening turkeys will take place throughout the Greek territory, at the slaughterhouses where they are slaughtered only at Christmas period (seasonal production). The relevant Veterinary Directorates will be responsible to collect 10 blood samples of 10 ml each per flock slaughtered.

The implementation of the Programme for turkey breeders will take place throughout the Greek territory at their holdings and/or abattoirs during slaughtering. The relevant Veterinary Directorates will be responsible to collect 10 blood samples of 10 ml each per holding, and from the different sheds, if more than one shed is present on a holding. In case of several sheds the sample size per holding shall increase to 5 blood samples per shed.

Number of turkey farms to be sampled is calculated based on figures shown in Table 1 of point 5 of Annex I to Commission Decision 2010/367/EU..

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

Taking into account the number of fattening turkey farms (50) and turkey breeder farms (7) in Greece, 35 fattening turkey farms and all 7 turkey breeder farms will be sampled and totally 420 turkey blood samples will be collected throughout Greece.

III) Ostrich farming

Ostrich sampling will take place during their slaughtering in abattoirs used for bovine/porcine animals. The relevant Veterinary Directorates will be responsible to collect 5 blood samples of 10 ml each per animal slaughtered. Taking into account that the number of ostrich farms in Greece is 49, 35 of them will be sampled and totally 175 ostrich blood samples will be collected throughout Greece.

IV) Duck and Goose farming

Due to the fact that ducks and/or geese are only kept in low numbers as "backyard" poultry and their premises cannot be considered as normal "farms", a total of 10 blood samples of 5 ml each will be collected from 2 premises per prefecture. Taking into account that the number of the prefectures is 54, it is estimated that totally 540 ducks/geese blood samples will be collected throughout Greece. Total number of this type of duck and geese "holdings" per prefecture is n/a.

VI) Farmed game birds

In Greece 20 farms for the production of game birds exist, i.e. birds farmed for release and hunting. Bird species is partridges, pheasants and quails. As in previous year 2011, these farms will be included in the AI surveillance programme for 2012 focusing mainly in adult birds. Ten blood samples will be collected from every farm, and from the different sheds, where more than one shed is present. In case of several sheds the sample size per holding shall increase to 5 blood samples per shed.

Analytical presentation of the sampling plan concerning all the above mentioned poultry categories is laid down in tables in section 5 of this form.

3. Target populations

(max. 32000 chars) :

Based on recent data, Gallus gallus species represent the majority of farmed poultry, mainly reared in two types, egg and meat production. The annual laying population varies between 6,3 and 6,400,000 layers while around 115-120,000,000 broilers are fattened per year. A less important category in terms of production size, but quite significant for biosecurity reasons, is the farming of chicken meant to be sold for use as backyard.

The breeding of other species of poultry in Greece continues to be very limited and consists of seasonal turkey rearing with a rather small number of farms and a small number of turkeys per farm. Ostrich rearing has started showing signs of decline leading to a gradual reduce in the number of ratite holdings. Quail rearing is represented by only a few farms and ducks or geese are only kept as backyard

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

poultry.

Given the current status of poultry production in Greece and in accordance with the guidelines set in Commission Decision 2010/367/EU, surveillance will primarily focus on chicken breeders, laying hens, free range broilers, fattening turkeys and chicken meant to be sold for use as backyard. The other poultry categories, although in a lesser extent, shall be also included in sampling plan in order to ensure wide range coverage of native poultry population.

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) :

Surveillance will not be risk-based.

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) :

Surveillance will not be risk-based.

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

4.2. Targeting of populations at risk

(max. 32000 chars) :

Surveillance will not be risk-based.

4.3. Targeting of poultry holdings to be sampled

(max. 32000 chars) :

Surveillance will not be risk-based.

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

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

Category : chicken breeders

delete this 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	
GR21	71	35	10	350	ELISA test	X
GR30	15	8	10	80	ELISA test	X
GR12	6	3	10	30	ELISA test	X
GR25	6	3	10	30	ELISA test	X
GR24	5	2	10	20	ELISA test	X
GR43	4	2	10	20	ELISA test	X
Total	107	53		530		

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

(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.

Add a new row

Category : laying hens

delete this 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
GR30	193	23	10	230	ELISA test
GR12	100	20	10	200	ELISA test
GR25	36	8	10	80	ELISA test
GR24	21	4	10	40	ELISA test
GR21	11	1	10	10	ELISA test
GR14	10	1	10	10	ELISA test
GR42	10	1	10	10	ELISA test
GR43	5	1	10	10	ELISA test
GR11	6	1	10	10	ELISA test
Total	392	60		600	

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

Add a new row	(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.
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Category : fattening turkeys

delete this 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
GR14	32	22	10	220	ELISA test
GR12	13	10	10	100	ELISA test
GR25	1	1	10	10	ELISA test
GR21	1	1	10	10	ELISA test
GR11	1	1	10	10	ELISA test
Total	48	35		350	
Add a new row					

(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.

Category : turkey breeders

delete this category

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

NUITS (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
GR12	3	3	10	30	ELISA test
GR14	3	3	10	30	ELISA test
GR23	1	1	10	10	ELISA test
Total	7	7		70	
Add a new row					

(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.

Category : free range laying hens

delete this category

NUITS (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
GR30	4	4	10	40	ELISA test
GR12	3	3	10	30	ELISA test
GR24	3	3	10	30	ELISA test
GR25	2	2	10	20	ELISA test

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

GR43	1	1	10	10	ELISA test	X
Total	13	13		130		
Add a new row						
<i>(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.</i>						

Category : free range/organic broilers

delete this 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
GR21	43	33	10	330	ELISA test
GR25	5	2	10	20	ELISA test
Total	48	35		350	
Add a new row					
<i>(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.</i>					

Category : poultry (mainly chicken) reared and sold for use as backyard

delete this 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

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

GR30	61	30	10	300	ELISA test	X
GR12	18	8	10	80	ELISA test	X
GR25	15	7	10	70	ELISA test	X
GR23	11	5	10	50	ELISA test	X
GR14	4	1	10	10	ELISA test	X
GR11	4	1	10	10	ELISA test	X
GR43	2	1	10	10	ELISA test	X
Total	115	53		530		
Add a new row						
<p><i>(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.</i></p>						

Category : ratites

delete this 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
GR12	20	14	5	70	ELISA test
GR14	11	8	5	40	ELISA test

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

GR21	6	4	5	20	ELISA test	X
GR11	5	3	5	15	ELISA test	X
GR25	3	2	5	10	ELISA test	X
GR24	2	2	5	10	ELISA test	X
GR42	2	2	5	10	ELISA test	X
Total	49	35		175		
Add a new row						
<i>(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.</i>						

Category : farmed feathered game

delete this 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	
GR24	5	5	10	50	ELISA test	X
GR43	2	2	10	20	ELISA test	X
GR12	3	3	10	30	ELISA test	X
GR30	1	1	10	10	ELISA test	X

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

GR13	3	3	10	30	ELISA test	X
GR21	1	1	10	10	ELISA test	X
GR22	1	1	10	10	ELISA test	X
GR25	1	1	10	10	ELISA test	X
GR14	1	1	10	10	ELISA test	X
GR23	1	1	10	10	ELISA test	X
GR11	1	1	10	10	ELISA test	X
Total	20	20		200		
Add a new row						
<p><i>(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.</i></p>						

Add a category

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

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
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Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

GR24	0	10	5	50	ELISA test	X
GR43	0	8	5	40	ELISA test	X
GR12	0	14	5	70	ELISA test	X
GR30	0	8	5	40	ELISA test	X
GR13	0	8	5	40	ELISA test	X
GR21	0	8	5	40	ELISA test	X
GR22	0	8	5	40	ELISA test	X
GR25	0	10	5	50	ELISA test	X
GR23	0	6	5	30	ELISA test	X
GR11	0	10	5	50	ELISA test	X
GR14	0	8	5	40	ELISA test	X
GR41	0	6	5	30	ELISA test	X
GR42	0	4	5	20	ELISA test	X
Total	0	108		540		

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

(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.

Add a new row

6. Frequency and period for testing

(max. 32000 chars) :

Sampling period shall be applied from 1 of January until 31 of December 2012 and every selected poultry holding shall be sampled once during this period.

7. Laboratory testing

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

According to sampling plan, serological tests shall be performed by the four designated laboratories in the framework of the survey programme for avian influenza in poultry.

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.

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

All positive serological findings shall be confirmed by the NRL by a haemagglutination-inhibition test, using designated strains supplied by the EURL:

- (a) for H5 subtype:
 - (i) Initial testing using teal/England/7894/06 (H5N3);
 - (ii) Testing of all positives with chicken/Scotland/59(H5N1) to eliminate N3 cross reactive antibodies
- (b) for H7 subtype:
 - (i) Initial testing using turkey/England/647/77 (H7N7);
 - (ii) Testing of all positive with African starling/983/79 (H7N1) to eliminate N7 cross reactive antibodies.

Positive serological findings shall be followed up by epidemiological investigation at the holding and further sampling for testing by virological methods in order to determine, if active infection of avian influenza virus is present.

All avian influenza virus isolates shall be submitted to the EURL in accordance with Community legislation. Viruses of H5/H7 subtype shall be submitted without delay in order to be subjected to the standard characterisation tests (nucleotide sequencing/IVPI) according to the Diagnostic Manual.

The specific protocols provided by the EURL to accompany samples and diagnostic material to be sent to the EURL shall be used.

8. Description of the surveillance programme in wild birds

8.1 Objectives of surveillance

(max 32000 chars)

The objective of surveillance for avian influenza in wild birds is the timely detection of HPAI H5N1 and other HPAI viruses in wild birds to protect domestic poultry and safeguard veterinary public health. This shall be accomplished by implementing a "passive" surveillance system based on risk assessment and focused on laboratory investigation of moribund wild birds or birds found dead. In terms of risk factors for domestic poultry and veterinary public health related to indirect or direct exposure to wild birds, bird species and geographical areas shall be assessed in order to determine risk levels for possible HPAI

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

presence in wild birds and to appropriately design the surveillance plan.

8.2 Surveillance design

(max. 32000 chars) :

The survey in wild birds is first of all based on information regarding distribution, main habitats, behavior, movements and population sizes of targeted wild bird species (TS), listed in part 2 of Annex II to Commission Decision 2010/367/EU, in Greece. Moreover, it takes into account all available data on Greek wetlands in conjunction with the location and density of poultry farms around the country. Finally, it considers and utilizes all results obtained during the implementation of previous AI surveillance programmes.

Apart from the Veterinary Authorities and In the framework of a long established cooperation, all bodies actively interacting with wild birds shall be informed of the purpose, the guidelines and the goals of this programme in order to secure their necessary contribution in both preparing and implementing it. In particular the Hunters Confederation of Greece, the Greek Ornithologists Society, the National Agriculture Research Foundation, the Forestry Services General Directorate of the Ministry of Environment and Climate change and two private Institutions dealing with collection, medical treatment and release of injured or diseased wild birds, shall assist in species identification, sampling, optimising sampling procedure and adjusting Community's guidelines to national situation.

Passive surveillance, focused on laboratory investigation of moribund wild birds or birds found dead, is the main type of surveillance to be implemented. 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 Greece. In that case the specific migration patterns and wild bird species shall be taken into account. On this basis, a number of 250 birds is expected to be sampled in the framework of passive surveillance, whereas additional 100 birds can be estimated in case active surveillance is implemented. Numbers can be substantially higher in case of massive deaths.

Passive surveillance will be based on the notification for moribund or dead birds from citizens throughout the whole territory of Greece. Veterinary Authorities shall assess and filter incoming reports by focusing on TS which are found in areas close to the sea, lakes and waterways where poultry farms are in high densities. Bird cases meeting the requirements of the surveillance plan and therefore considered eligible for sampling shall be forwarded to the

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

designated laboratories.

Moreover and given their background, all those actively involved with wild birds (hunters, ornithologists, volunteers etc) not only will they assist sampling in the context of a passive surveillance system but they will also secure optimal sample collection in terms of species identification and sampling in "high-risk" areas. Whenever active surveillance is considered necessary, they shall carry it out as well.

According to previous experience a sampling scheme will be prepared and included in the Ministerial Decision for the implementation of the surveillance programme. This sampling scheme will describe the areas and bird species to be sampled and the responsibilities of the above mentioned organizations in the sampling collection in such a manner so all target areas and target species will be thoroughly covered. In the sampling scheme a full characterization of the bird species to be sampled shall be included. The sampling scheme will be prepared by the Department of Avian Pathology of the GVD in co-operation with the Hunters Confederation of Greece, the Forestry Services General Directorate of the Ministry of Rural Development and Food and the Greek Ornithologists Society.

Sampling shall extend from 1 of January up to 31 of December 2012. All kinds of samples will be packaged and sent by the Veterinary Directorate or institution responsible, to the designated laboratories. Four state veterinary laboratories will be involved (same as in poultry monitoring):

- i) The Avian Pathology Dept. of the Center of Institutions of Thessalonica (80, 26th of October Street, 54627 Thessalonica) which is designated as the Greek National Reference Laboratory for Avian Influenza and has the responsibilities that are foreseen in Council Directive 2005/94/EE will be acting as co-ordinator for the laboratory tests to be performed and will accept samples from the areas of Thrace and Macedonia.
- ii) The Avian Pathology Dept. of the Center of Institutions of Athens (26, Neapoleos Street, 15310 Agia Paraskevi, Athens) which is designated as the Greek National Laboratory for Newcastle Disease, which will accept samples from Peloponese and the islands of Aegean Sea.
- iii) The State Veterinary Laboratory of Chalkis, which will accept samples from Center Greece and Evia island.
- iv) The State Veterinary Laboratory of Ioannina, which will accept samples from the area of Epirus (north-western Greece).

Every Prefectural Veterinary Directorate or every local veterinary office, upon dispatching samples to the relevant laboratory will in written notify the relevant State Veterinary Laboratory and General Veterinary Directorate of Ministry of Rural Development and Food about :

- number and types of samples sent
- species and number of wild birds sampled
- date of sampling in the field/place of bird origin
- geo of sample
- status of birds

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

The laboratories upon obtaining the results from the tests they will perform, will in written inform the NRL and the General Veterinary Directorate of the Ministry of Agriculture, mentioning:

- protocol number of dispatch-relevant-veterinary authority
- date of receipt of sample in laboratory
- species and number of wild birds examined
- number and types of samples examined
- geo of sample
- status of birds
- laboratory tests used and results

In case of confirmed positive cases of HPAI H5 (N1) [Disease control measures are to be implemented based on confirmation of HPAI H5 and suspicion of N1], the control measures laid down in Commission Decision 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 shall apply. As part of epidemiological investigations, areas linked to those cases shall be identified to possibly forecast further virus incursions of avian influenza, in particular in areas of relevance to poultry production, such as areas with a high density of poultry holdings.

Positive and negative results of surveillance of wild birds will be submitted to the Commission of the EU by the General Veterinary Directorate of the Ministry of Rural Development and Food through the Commission on-line system. Two 6-month period reports will be submitted by forwarding them within a period of four weeks following the end of the months covered by the report.

8.3 Sampling procedures

max 32000 chars :

Cloacal and tracheal/oropharyngeal swabs and/or tissues (namely the brain, heart, lung, kidney and intestines) from wild birds found dead or moribund shall be sampled for molecular detection (PCR) and/or virus isolation.

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

Specific care shall be taken for the storage and transport of samples to the laboratory for testing. The swabs shall be chilled immediately on ice or with frozen gel packs and submitted to the laboratory as quickly as possible. The samples shall not be frozen unless absolutely necessary. If rapid transport within 24 hours to the laboratory is not guaranteed, the samples shall be immediately frozen, stored and then transported on dry ice.

In addition and not as an alternative to chilling, the swabs shall be placed in an antibiotic or specific virus transport medium at 4 oC so that they are fully immersed. In the absence of such medium, swabs shall be returned to their casing and submitted dry to the laboratory for testing.

8.4 Laboratory testing

max 32000 chars :

Samples taken from wild birds shall be tested as soon as possible by molecular techniques. All four designated laboratories will perform rRT-PCR by using methods which are recognized by the CRL for avian influenza. Initial screening using M gene rRT-PCR shall be conducted, with rapid testing of positives for H5, H7 and N1 within a period of not more than 2 weeks . In addition, all M gene positive samples shall be appropriately processed and inoculated in embryonated fowl's eggs.

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.

Viruses of the H5/H7 subtype shall be submitted to the EURL without delay in order to be subjected to the standard characterisation tests (nucleotide sequencing/IVPI)

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.

Standard requirements for the submission of surveillance programmes for avian influenza










version : 2.1

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

GR	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	
GR11		ANATIDAE	40	10	30	X
GR11		LARIDAE	15	5	10	X
GR11		RALLIDAE, PODICIPEDIDAE & ⁺	10	3	7	X
GR11		CHARADRIIDAE, ACCIPITRID, ⁺	10	3	7	X
GR12		PHALACROCORACIDAE	15	5	10	X
GR12		ANATIDAE	55	15	40	X
GR12		CHARADRIIDAE, ACCIPITRID, ⁺	10	3	7	X
GR12		RALLIDAE, PODICIPEDIDAE & ⁺	10	3	7	X
GR21		ANATIDAE	35	10	25	X
GR21		CHARADRIIDAE, ACCIPITRID, ⁺	7	2	5	X
GR21		RALLIDAE, PODICIPEDIDAE & ⁺	7	2	5	X
GR23		ANATIDAE	10	3	7	X
GR23		CHARADRIIDAE, ACCIPITRID, ⁺	6	2	4	X

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

GR23	RALLIDAE, PODICIPEDIDAE & 	6	2	4	X
GR24	ANATIDAE	10	3	7	X
GR24	RALLIDAE, PODICIPEDIDAE & 	6	2	4	X
GR24	CHARADRIIDAE, ACCIPITRID. 	6	2	4	X
GR25	ANATIDAE	10	3	7	X
GR25	CHARADRIIDAE, ACCIPITRID. 	6	2	4	X
GR25	RALLIDAE, PODICIPEDIDAE & 	6	2	4	X
GR30	ANATIDAE	10	3	7	X
GR30	RALLIDAE, PODICIPEDIDAE & 	10	3	7	X
GR30	CHARADRIIDAE, ACCIPITRID. 	10	3	7	X
GR30	LARIDAE	10	3	7	X
GR42	FALCONIDAE	6	1	5	X
GR41	ANATIDAE	7	2	5	X
GR41	LARIDAE	7	2	5	X
GR43	ANATIDAE	6	1	5	X
GR43	RALLIDAE, PODICIPEDIDAE & 	2	0	2	X
GR43	CHARADRIIDAE, ACCIPITRID. 	2	0	2	X
Total		350	100	250	

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

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

Add a new row

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

max 32000 chars :

In compliance with Community legislation, surveillance programmes of avian influenza have been implemented since 2003. Until now , numerous flocks from every poultry category have been sampled and tested negative for both HPAI and LPAI.

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

(max. 32000 chars) :

The Central Authority for the Programme is the General Veterinary Directorate of the Ministry of Rural Development and Food / Animal Health Directorate. The Department of Avian, Fish and Bee Pathology of the Animal Health Directorate is responsible for the description of the Programme, the follow up of the necessary procedures and the collection and elaboration of the data.

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

9.1.2 System in place for the registration of holdings

(max. 32000 chars) :

Holdings are registered by using the NUTS (3) code in conjunction with a unique prefectural number assigned to them by the Competent Veterinary Authority. Thus every holding is easily identified and traceability is secured.

9.1.3 Data on vaccination carried out

(max. 32000 chars) :

Based on present epidemiological status of the disease and arguments for and against vaccines application, vaccination for avian influenza is prohibited not only in poultry population, but in captive birds as well.

In case of significant future developments concerning epidemiology of avian influenza and data on vaccines, the Central Competent Authority may at any time reconsider its current vaccination policy and introduce a new one, in accordance to recent Community Legislation (dir. 2005/94/EC).

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

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

(max. 32000 chars) :

In compliance with Community legislation, surveillance programmes of avian influenza have been implemented since 2003. The first occurrence of the disease was reported during the implementation of the 2006 programme, where virological tests were carried out in more than 2500 wild birds and 33 of them, all found dead in the framework of passive surveillance, were tested positive for HPAI H5N1 between 30/1/2006 and 4/3/2006. In particular, 30 of these cases were detected in mute swans, 1 case in whooper swan, 1 case in a wild goose and 1 case in a cormorant, while these birds were discovered mainly in the northern part of Greece. Since then no HPAi or LPAI subtypes of H5 or H7 have been detected in wild birds.

10.1 Measures included in the programme for surveillance in wild birds

(max. 32000 chars) :

Laid down in sections 10.1.1, 10.1.2 and 10.1.3 as follows.

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

32max. 32000 chars) :

The Central Authority for the Programme is the General Veterinary Directorate of the Ministry of Rural Development and Food / Animal Health Directorate. The Department of Avian, Fish and Bee Pathology of the Animal Health Directorate is responsible for the description of the Programme, the follow up of the necessary procedures and the collection and elaboration of the data.

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

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

(max. 32000 chars) :

Primary objective of the sampling plan drawn for the purposes of this programme is to focus on certain regions by taking in account risk assessment results on the basis of epidemiological data. Special emphasis shall be laid on the deltas of Evros, Evrotas, Sperchios and Axios rivers, on the lakes of Vistonis, Paralimni, Kerkini, and Pamvotis, on the Gulfs of Amvrakikos and Kaloni, on the Mesologi lagoon, on the Schinias wetland and finally on the dam of Anapodaris river. These areas, which are included in the sampling plan, are located in the regions of Thrace, Macedonia, Epirus, Aegean Islands, Sterea Ellada, Crete, and Peloponisos, covering 10 out of 13 administrative districts. However, the majority of samples are scheduled to be collected from the northern part of the country (Thrace, Macedonia, Epirus), where a larger wildlife population and a higher concentration of poultry farms are observed.

10.1.3 Estimation of the local and/or migratory wildlife population

(max. 32000 chars) :

No relevant data exist. According to ornithological bodies, numbers vary, depending on severity of winter conditions in Asia and Europe.

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

(max. 32000 chars) :

According to recent Greek legislation which has been into full force since 2005 the immediate notification of any abnormal mortality or sickness of migrating or domestic wild birds has been obligatory.

As regards the notification of the disease, currently in force Presidential Decree 33/2008 secures that the suspected and confirmed presence of avian influenza are compulsorily and immediately notified to the competent authority in accordance with Council Directive 2005/94/EE.

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

12. Costs

12.1 Detailed analysis of the costs

12.1.1 Poultry

(max. 32000 chars) :

Serological pre-screening of Gallus gallus and turkey holdings will be conducted using indirect ELISA. In particular, 256 holdings will be sampled and 2560 sera will be examined. Estimating a €2 cost per sample, the total cost for serological pre-screening using indirect ELISA will reach €5120,00.

Serological pre-screening will also be conducted on holdings of raites, farmed game birds, and backyard ducks and geese using competitive ELISA. More analytically, 163 holdings will be sampled and 915 sera will be examined. Estimating a €2 cost per sample, the total cost for serological pre-screening using competitive ELISA will reach €1830,00.

Haemagglutination Inhibition (HI) tests for H5/H7 will be used for ELISA positive sera which are estimated to reach 1% of the 3.475 examined samples.

Thus, 35 sera will be tested with HI. Estimating a €12 cost per sample the cost for HI tests will reach €420,00.

HI positive tests for H5/H7 shall be followed by further sampling and testing according to diagnostic manual's guidelines on type and number of samples where AI outbreaks are suspected. By estimating that a number of 3 holdings shall be suspected of AI infection, additional 60 HI tests for H5/H7 and 150 Real time PCR (rRT-PCR) tests shall be performed costing €720,00 and €2250,00 respectively.

Additional expenses due to sampling and dispatching are estimated to €0.5 per poultry sampled and are calculated to a total amount of €1 907,50.

12.1.2 Wild birds

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

(max. 32000 chars) :

Real time PCR (rRT-PCR) will be conducted for all wild bird samples. As presented in section 8.5, 350 wild birds will be sampled and 700 samples (two per bird) will be collected. Estimating a €15 cost per sample the cost for rRT-PCR tests will be €10 500,00.

Virus Isolation (VI) test will be used for rRT-PCR positive samples which are estimated to reach 5% of the 700 examined samples. Thus, 35 samples will be tested using VI with a total cost of € 1 050,00.

Additional expenses due to sampling and dispatching are estimated to €7 per wild bird sampled and are calculated to a total amount of €2 450,00.

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

12.2 Summary of the costs

12.2.1 Poultry surveillance

Methods of laboratory analysis	Number of tests to perform per method	Unitary test cost (per method) in €	Total cost (€)
ELISA test	3 475	2	6950
agar gel immune diffusion test	0	0	0
Haemagglutination-inhibition-test (HI) for H5 (specify number of tests for H5)	95	6	570
Haemagglutination-inhibition-test (HI) for H7 (specify number of tests for H7)	95	6	570
Virus isolation test	0	0	0
PCR test	150	15	2250
Total	3 815		10 340,00 €
Other measures to be covered			
Sampling	3 815	0.5	1907.5
			Add a new row
Total	0		1 907,50 €

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

12.2.2 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	0
Virus isolation test	35	30	1050
PCR test	700	15	10500
Other please specify here	0	0	0
Total	735	45,00 €	11 550,00 €
Other measures to be covered			
Sampling	350	7	2450 X
			Add a new row
Total	350	7,00 €	2 450,00 €

Standard requirements for the submission of surveillance programmes for avian influenza

version : 2.1

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