



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL

Unit G5 - Veterinary Programmes

SANCO/10784/2012

*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

Malta

* 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 : MALTA

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 objective of the programme includes:

- Achieving harmonization with other EU countries in veterinary control and surveillance programmes;
- The strengthening of veterinary epidemiological surveillance measures in accordance with EU legislation;
- Ensuring the early recognition of sub clinical infections of Low Pathogenic Avian Influenza within the local animal population;
- The rapid implementation of investigation protocols with all relevant restrictions on the movement of animals and animal products coming into force until confirmatory results are received.
- Contribute to achieving a disease free status for Malta from notifiable Avian Influenza
- To conform to community legislation with regards the surveillance of avian influenza in poultry and wild birds EC/94/2005.
- To enhance the surveillance of Avian influenza in wild bird species through increased collaboration with hunting organisations and conservation groups.

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2.2 Design, implementation and target population

(max. 32000 chars) :

- Sampling shall take place between January and December 2012. The targeted population are layer flocks.
- Samples shall be tested at the National Veterinary Laboratory in Malta using ELISA and any positive samples sent to the CRL for confirmatory testing.
- Any Confirmed positive holdings will be retrospectively investigated by the Veterinary Regulation Division under the Agriculture and Fisheries Regulation Department.

2.2.1 Risk based surveillance (RBS)

(max. 32000 chars) :

As Malta is not in a position to carry out a sufficiently evidence based assessment of risk pathways for infection of poultry flocks in its territory, surveillance programme based on a representative sample as outlined in Annex 1 of Commission Decision 367/2010 will be adopted.

2.2.2 Surveillance based on Representative Sampling

(max. 32000 chars) :

As Malta is not in a position to carry out a sufficiently evidence based assessment of risk pathways for infection of poultry flocks in its territory, a surveillance programme based on a representative sample as outlined in Annex 1 of Commission Decision 367/2010 will be adopted.

3. Target populations

(max. 32000 chars) :

The only Target Populations present in the Maltese Islands as set out in point 3 Annex 1 of Commission Decision 367/2010 are laying hens (a) the other varieties of poultry listed (b to l) are not reared on a commercial level.

4. Risk-based surveillance (RBS) method

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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) :

Although an evidence based assessment of risk pathways for infection of poultry flocks in the Maltese territory, has not been carried out, all commercial "target species" flocks, that is laying hens, are housed in doors. There is no access to wild birds. The sprawling urban environment of the Maltese Islands is a further deterrent for wild birds to have contact with domestic poultry.

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) :

An evidence based assessment of risk pathways for infection of poultry flocks in the Maltese territory, has not been carried out. Surveillance will be based on Representative Sampling, however once introduced on a farm the close proximity of houses on a holding would facilitate the spread of avian influenza on a farm.

4.2. Targeting of populations at risk

(max. 32000 chars) :

An evidence based assessment of risk pathways for infection of poultry flocks in the Maltese territory, has not been carried out. Surveillance will be based on Representative Sampling. Refer to point 3 above.

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4.3. Targeting of poultry holdings to be sampled

(max. 32000 chars) :

An evidence based assessment of risk pathways for infection of poultry flocks in the Maltese territory, has not been carried out.

The only target populations present in the Maltese Islands as set out in point 3 Annex 1 of Commission Decision 367/2010 are laying hens (a) the other varieties of poultry listed (b to l) are not reared on a commercial level.

All target populations, that is, laying hens will be sampled. This will be carried out when flocks are sampled for salmonella according to the Salmonella National Control Programme.

There are currently 41 operational holdings with layers on the Maltese islands, which between them, are made up of approximately 118 houses/flocks. On the bases of Annex 1 of Commission Decision 367/2010, point 5 (representative sampling method) ,table 1(Number of poultry holdings to be sampled in each poultry production category) all 41 holdings will be sampled.

In line with point 5.2 of Annex 1 of Commission Decision 367/2010, a maximum 10 samples will be collected from each of the houses.

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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 : 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
Malta	41	41	10	1 180	ELISA test
Total	41	41		1 180	
<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>					

Add a category

Add a new row

5.2 Ducks, geese and mallard holdings to be sampled according to table 2 of Annex 1 to Decision 2010/367/EU

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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
Malta	0	0	0	0 NA	X
Total	0	0		0	
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.

6. Frequency and period for testing

(max. 32000 chars) :

The testing period will run from January to December 2012. All target populations, that is, laying hens will be sampled. This will be carried out when flocks are sampled for salmonella.

7. Laboratory testing

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

- The initial screening of the blood samples will be carried out at the National Veterinary Laboratory of the Veterinary Regulation Division (VRD) using the IDEXX ELISA kits.
- Any positive samples to the ELISA screening test will be sent to the Community Reference Laboratory for avian influenza in Weybridge, UK;
- Virus isolation and PCR on faecal and tracheal samples from wild birds shall be carried out by the Community Reference Laboratory for avian influenza in Weybridge, UK.

8. Description of the surveillance programme in wild birds

8.1 Objectives of surveillance

(max 32000 chars)

The objectives of the programme are to maintain vigilance for the appearance of strains of Avian Influenza in local and migratory wild bird species through active and passive surveillance.

Around 380 are species have been recorded in the islands. About 50 are winter visitors, 112

more or less regular migrants and the rest rare an irregular migrants or vagrants. The presence of birds in summer months is rather low with the peak of activity attained in spring and autumn. Although there is a consistent migration of birds throughout the islands in both seasons, weather conditions greatly affect the numbers of migrants. On some days during migration the islands may experience a large influx of birds, while at other times there may be very little movement in evidence.

The migrants include both species that winter south of the Sahara and those that go no further than the Mediterranean basin. During late summer, herons, raptors, waders, hirundines, several warblers and chats are present on the island. These increase dramatically in September and October. In November the migration of trans-Saharan migrants is over and replaced by influxes of the wintering species, some waterfowl and plovers, finches and other passerines.

In spring a similar progression, but in reverse order, can be observed between early

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March and late May. Hoopoes, Marsh Harriers, Grey and Night Herons and Swallows and Martins in transit are amongst the first to appear in Spring. They are followed by small passerines such as Subalpine, Great Reed and Icterine Warblers and later by Golden Orioles, Bee Eaters, Woodchat Shrikes and the occasional Roller.

8.2 Surveillance design

(max. 32000 chars) :

The collaboration with hunting associations, bird conservation groups, bird parks and bird sanctuaries will be maintained. This will ensure a continuous supply of samples from migratory wild bird species for active and passive surveillance. In the Maltese Islands there are two establishments that function as a bird park and as a falconry center. Close contact with these centers is maintained as the presence of the captive birds in these establishments may act as an attraction to migrating bird species. There are also two main bird sanctuaries one in Mistra, the Simar reserve, and one in Mellieha, the Ghadira reserve, which are run by local conservation groups where wild birds may aggregate. Samples from these parks are also taken through collaboration with the conservation groups involved. Due to the banning of the spring hunting season the number of bird activity appears to be on the increase in certain areas. The VRD also has in place a help line through which the public can notify the division with regards to any wild birds found dead in the countryside or the coastline.

8.3 Sampling procedures

max 32000 chars :

Wild ducks and other migratory birds shall be sampled by means of cloacal swabs, tracheal swabs and/or faecal samples, which shall be sent to the CRL in Weybridge for testing by means of PCR and viral isolation.

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8.4 Laboratory testing

max 32000 chars :

- Virus isolation and PCR on faecal, cloacal and tracheal samples from wild birds shall be carried out by the Community Reference Laboratory for avian influenza in Weybridge, UK.
- Swabs will be dispatched by express courier to the CRL under suitable conditions to ensure the survival of the virus if this is present in the sample.

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

NUITS (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
Malta	species in annex 2 part 2	100	50	50 X
Total		100	50	50
Add a new row				

(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.

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

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max 32000 chars :

Surveillance programme 2002

In 2002 an EU funded epidemiological survey was carried out on the poultry population of Malta and Gozo. Sampling was carried out at slaughter houses in most of the cases. All the 139 farms tested were negative. In total 1680 samples were tested in 2002.

Surveillance programme 2003

No AI surveillance was carried out in 2003

Surveillance programme 2004

A total of 38 poultry holdings were sampled and tested in 2004. A total of 341 birds were tested using IDEXX ELISA. Thirty of the sera were sent to the CRL for confirmatory tests. None of the holdings or samples tested were positive.

Surveillance programme 2005

A total of 63 poultry farms in Malta and 9 farms in Gozo were tested during the surveillance programme carried out during 2005. The blood samples were tested locally using the IDEXX kit for avian Influenza. Samples from 33 holdings in Malta and 3 in Gozo gave positive results. These were sent to the CRL for AI in Weybridge, UK for confirmation using the haemagglutination-inhibition tests for H5/H7. All samples resulted negative to the confirmatory test.

Surveillance programme 2006

The surveillance of poultry flocks was similar to that for the year 2005. An intensification of the number of samples from poultry holdings has been undertaken. The number of holdings sampled in 2006 was 71, while the number of birds sampled was 1239.

Surveillance programme 2007

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In 2007, 74 layer holdings were sampled. A total of 709 samples were collected and tested during this year.

None of the samples tested in 2007 tested positive for Avian Influenza.

Surveillance programme 2008

In 2008 layer holdings were sampled and tested using IDEXX ELISA kits. A total of 276 samples were collected and tested during this year.

None of the samples tested in 2008 tested positive for Avian Influenza.

Surveillance programme 2009

The surveillance of poultry flocks was similar to that of the previous years. Layer flocks were sampled and tested by the National Veterinary Laboratory using IDEXX ELISA kits. The number of samples collected and tested in 2009 was 683

Surveillance programme 2010

In 2010, 44 layer holdings were sampled and tested using IDEXX ELISA kits. A total of 1800 samples were collected and tested during this year.

None of the samples tested in 2010 tested positive for Avian Influenza.

9.1 Measures included in the programme for surveillance in poultry

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

(max. 32000 chars) :

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

The Agriculture and Fisheries Regulation Department (AFRD), Al bertown, Marsa is responsible for the programme. The National Veterinary Laboratory is responsible for testing and dispatch of samples to the CRL.

9.1.2 System in place for the registration of holdings

(max. 32000 chars) :

The Egg Marking Regulation 345/2003 requires that all eggs sold at retail level, have to be marked by a unique identity number. This unique number is issued by the Competent Authority, which is the AFRD, to all registered commercial layer flocks.

- There are no turkey flocks on the Island
- There are no breeding parent flock on the Island.
- There are no free-range farms or outdoor holdings.
- The layer flocks are all multi-age systems with a minimum production period of 1.5 years to a maximum of 3 years.

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- Ratites, ducks, quails and pheasants are not bred or reared commercially in Malta.
- A registration of backyard flocks of poultry and waterfowl in the Maltese territory was carried out during October 2005.

9.1.3 Data on vaccination carried out

(max. 32000 chars) :

No vaccination for AI is carried out in the Maltese Islands

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

(max. 32000 chars) :

Surveillance programme 2005

32 samples were taken from wild birds. Apart from organ samples from two dead birds found on a cargo ship originating from Taiwan, which were tested by viral isolation, all other samples were sera from wild ducks. All samples were sent to the CRL in Weybridge, UK and resulted negative.

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Surveillance programme 2006

In 2006 the number of wild ducks and other migratory birds sampled by means of cloacal swabs and/or faecal samples, and sent to the CRL in Weybridge for testing by means of PCR and viral isolation was 90. A number of other wild and semi captive ducks³⁶, were tested by serology.

Surveillance programme 2007

A number Wild ducks and other migratory birds were also sampled by means of cloacal swabs, tracheal swabs and/or faecal samples, which were then sent to the CRL in Weybridge for testing by means of PCR and viral isolation.

Surveillance programme 2009

A number of wild birds (19) were sampled by means of cloacal swabs, tracheal swabs and/or faecal samples, which were sent to the CRL in Weybridge for testing by means of PCR and viral isolation. The collaboration with hunting associations, bird conservation groups, bird parks and bird sanctuaries has been maintained. All samples tested negative

Surveillance programme 2010

In the previous years the main source of wild bird samples originated from birds shot during the spring migration. Due to the clamping down by the Maltese Authorities on this practice, during 2010, no samples of wild birds were collected and tested.

10.1 Measures included in the programme for surveillance in wild birds

(max. 32000 chars) :

Wild ducks and other migratory birds shall be sampled by means of cloacal swabs, tracheal swabs and/or faecal samples, which shall be sent to the CRL in Weybridge for testing by means of PCR and viral isolation. The collaboration with hunting associations, bird conservation groups, bird parks and bird

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sanctuaries will be maintained. This will ensure a continuous supply of samples from migratory wild bird species for active and passive surveillance.

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

(max. 32000 chars) :

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

The Agriculture and Fisheries Regulation Department, Albertown, Marsa is responsible for the programme. The National Veterinary Laboratory is responsible for testing and dispatch of samples to the CRL.

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

(max. 32000 chars) :

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

- The surveillance programme will apply to the Islands of Malta and Gozo;
- The two islands are going to be considered as one region

10.1.3 Estimation of the local and/or migratory wildlife population

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(max. 32000 chars) :

There are no statistics of the local and/or migratory wildlife population, the following data is based on the number of hunted or trapped birds

Anas acuta 13 Rallus aquaticus 19 Carduelis carduelis 497
Anas clypeata 14 Fulica atra 64 Carduelis chloris 2494
Anas crecca 62 Pluvialis apricaria 1192 Carduelis spinus 296
Anas Penelope 22 Pluvialis squatarola 59 Coccythraustes coccythraustes 94
Anas platyrhynchos 38 Vanellus vanellus 97 Fringilla coelebs 3746
Anas querquedula 6 Gallinago gallinago 121 Serinus serinus 1599
Anas strepera 29 Lymonocryptes minimus 39 Sturnus vulgaris 25348
Anser anser 21 Philomachus pugnax 41 Turdus philomelos 39263
Anser fabalis 29 Scolopax rusticola 1504 Turdus viscivorus 324
Aythya farina 6 Columba palumbus 31 Turdus pilaris 834
Aythya fuligula 7 Streptopelia turtur 36675 Carduelis cannabina 14362
Mergus serrator 9 Alauda arvensis 24022 Gallinula chloropus 77
Coturnix coturnix 18792 Turdus iliacus 543 Turdus merula 573

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

(max. 32000 chars) :

The Veterinary Service Act, Chapter 437 Articles 5, 6,7,8,9 16, 18, 19, 35 and 37 and the second, third and fifth schedule of the Act, lay down Local legislation that deals with the notification of Avian Influenza.

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12. Costs

12.1 Detailed analysis of the costs

12.1.1 Poultry

(max. 32000 chars) :

The ELISA tests used for testing of poultry, are purchased from IDEXX is calculated at 2 Euro per sample. Laboratory personnel has not been included since staff also carries out other duties namely related to the salmonella control programme.

A number of samples will be sent to the CRL in the U.K to be tested by other methods such as PCR, HI, AGIDT and virus isolation. Any positive ELISA samples will be sent to the CRL in the UK for confirmatory analysis.

12.1.2 Wild birds

(max. 32000 chars) :

Any samples collected from wild birds will be sent to the CRL in the U.K to be tested by other methods such as PCR, HI and virus isolation.

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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	1 180	2	2360
agar gel immune diffusion test	20	9	180
Haemagglutination-inhibition-test (HI) for H5 (specify number of tests for H5)	20	6.5	130
Haemagglutination-inhibition-test (HI) for H7 (specify number of tests for H7)	20	6.5	130
Virus isolation test	20	70	1400
PCR test	20	30	600
Total	1 280		4 800,00 €
Other measures to be covered			
na	0	0	X
Add a new row			
Total	0		0,00 €

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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	50	6.5	325
Virus isolation test	25	70	1750
PCR test	25	30	750
Other please specify here	0	0	0
Total	100	106,50 €	2 825,00 €
Other measures to be covered			
0	0	0	X
			Add a new row
Total	0	0,00 €	0,00 €

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