



## Annex IV : Programme for the surveillance of Avian Influenza in poultry and wild birds submitted for obtaining EU cofinancing

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Submission Date

Monday, August 24, 2015 14:20:30

Submission Number

1440418834496-6381

# ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

## 1. Identification of the programme

Member state: HRVATSKA

Disease avian influenza in poultry and wild birds

This program is multi annual :

no

Request of Union co-financing  
from beginning of:

2016

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## 1.1 Contact

Name : Ljupka Maltar

Phone : +385 1 6443 840

Your job type within the CA : +385 6443 899

Email : [ljupka.maltar@mps.hr](mailto:ljupka.maltar@mps.hr)

## 2. Description and implementation of the surveillance programme in poultry

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

(max. 32000 chars) :

Veterinary and Food Safety Directorate of the Ministry of Agriculture is the national competent authority responsible for supervision and coordination of implementation of the Program.

Animal Health Protection Sector of the Veterinary and Food Safety Directorate (VFSD) is responsible for developing the Program in coordination with a AI diagnostic laboratory of the Croatian Veterinary Institute (CVI).

The Program is implemented by authorised veterinarians who provide for sampling and submission of samples to the AI diagnostic laboratory.

Supervision of implementation of the Program on the field is carried out by veterinary inspectors (officials of the VFSD).

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### 2.1.2 *System in place for the registration of holdings*

*(max. 32000 chars) :*

According to the provisions of Article 37, paragraph 1 of the Veterinary Act (Official Gazette 82/13, 148/13), all farms are to be registered in the Farms Register, which is an integral part of the Central Register of Domestic Animals (CRDA), the responsibility for which lies with the MA's Veterinary and Food Safety Directorate. The Directorate has entered into contract with the Croatian Agricultural Agency (CAA) delegating to the CAA maintenance of CRDA.

All holdings keeping gallinaceous birds (chickens, turkeys, pheasants, partridges and quails) and ratites (ostriches) are registered. Also holdings keeping domestic waterfowl (e.g. ducks, geese and mallards for restocking supplies of game) are registered in the CRDA. For every holding CRDA contain information on unique holding number, name of the keeper, address, geographical coordinates, animal species and number of animals.

Ordinance on the conditions to be met by farms and conditions for the protection of farm animals farms of ungulates and equidae exceeding 20 conditional animal units, poultry and rabbit farms exceeding 10 conditional animal units, hatcheries, wild game breeding farms, establishments for farming of fish and molluscs and other facilities of aquaculture must comply with the stipulated veterinary-health and biosecurity conditions.

### 2.1.3 *Design (risk based surveillance or surveillance based on representative sampling taking into account criteria in Annex I of Commission Decision 2010/367/EC)*

*(max. 32000 chars) :*

AI surveillance based on representative sampling scheme will be implemented in 2016. Number of poultry holdings to be sampled is calculated based on Tables 1 and 2 of the Annex I of the Commission Decision 2010/367/EU and according to the poultry species present on the poultry holding. Holdings to be subject of sampling will be randomly selected from the list of all holdings of a specific poultry species and production categories keeping more than 100 animals. This will assure representativeness so generalization of findings to all holdings of a specific poultry species and production categories keeping more than 100 animals.

Backyard poultry in settlements where poultry is kept in proximity to large surface waters and migratory birds resting or nesting areas as well as backyard poultry in holdings where more than 50 animals of different poultry species (e.g. gallinaceous and domestic waterfowl, mixed) are kept together will also be included in the Program.

Target population (poultry production categories) to be included in the surveillance program, are:

1. laying hens
2. free range laying hens

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3. chicken breeders
4. turkey breeders
5. fattening turkey
- 6 farmed game birds (pheasants, partridges and quails)
7. backyard flocks

Number of holdings from each of the production categories mentioned above, to be subject of sampling, will assure identification of at least one infected poultry holding if the prevalence of infected holdings of this category is 5% or more, with 95% confidence interval (CI).

As regards backyard poultry, those keeping more than 50 of animals of different poultry species (e.g. gallinaceous and domestic waterfowl, mixed) are considered as an independent sampling frame and number of holdings to be samples will ensure identification of at least one infected poultry holding if the prevalence of infected holdings in that group of backyard holdings is 5% or more, with 95% CI.

In the sampling frame of backyard holdings, some holdings will be included based on the prior information on risk, collected within the frame of AI surveillance program (Tables providing an information of the results of AI surveillance in domestic poultry are attached to this document).

Number of birds to be sampled, per holding included in the Program, will ensure detection of at least one AI seropositive bird if the prevalence of seropositive birds on a holding is 30 % or more, with 95% confidence. Blood samples for serological examination will be collected from all poultry production categories and species and 10 birds will be sampled per one epidemiological unit on the holding (e.g on laying hens holdings in average there are 2 epidemiological units, while on chicken breeders in average there are 1,5 epidemiological unit).

Samples will be taken at farm level. Whenever possible samples will be taken at the slaughterhouse.

The following domestic waterfowl categories will be included in the program:

1. ducks breeders
2. geese breeders
3. fattening ducks
4. fattening geese
5. farmed game birds (waterfowl).

Number of duck, goose and mallard holdings to be sampled will ensure identification of at least one infected holding if the prevalence of infected poultry holdings of a specific poultry production category is 5% or more with 99% CI.

Number of ducks, geese and mallards to be sampled, per holding included in the program, will ensure detection of at least one AI seropositive bird if the prevalence of seropositive birds on a holding is 30 % or more, with 95% confidence.

Blood samples for serological examination will be collected from all poultry production categories and species and 20 birds will be sampled per one holding.

Samples will be taken at farm level. Whenever possible samples will be taken at the slaughterhouse.

In case of detection AI seropositive birds sampling for virological testing for AI will follow.

In case of change of epidemiological situation the Program will appropriately be amended.

### Responsibilities

1. To ensure the implementation of the Programme is the responsibility of the VFSD of the Ministry of

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Agriculture.

2. Bird samples shall be taken and submitted to the laboratory by authorised veterinarians.

2.1 The authorised veterinary organizations shall:

- once a month submit reports to the VFSD on the sampling of poultry in accordance with this Programme.

- submit, together with reports referred in the previous paragraph, a copy of the completed Sample Submission Forms as specified in the Annex to this Programme.

3. The laboratory testing of samples shall be carried out by Poultry Centre of the Croatian Veterinary Institute, Heinzelova 55, Zagreb, which is the National reference laboratory for AI.

The national reference laboratory shall:

- report all positive results to the Veterinary and Food Safety Directorate as soon as possible;

- report all negative results to the Veterinary and Food Safety Directorate once a month.

### 2.1.3.1 *Short description of predominant poultry population and types of poultry production*

(max. 32000 chars) :

Poultry production in Croatia may be described as follows: 92% of poultry production refers to hens, 2% to turkeys, 2% to ducks and 3% to geese.

Other types of poultry, such as guinea fowls, quails, pheasants are insignificant within poultry population. Fattening of broilers, as well as of turkeys assures significant meat production, while breeding of ducks and geese is not as represented, being just semi-intensive for local market supply. Croatia has enough supplies of poultry meat for its own market. Around 70% of fattened poultry originates from intensive systems, other 30% refers to traditional, semi-intensive production for individual consumption. In Croatia, there is a yearly production of 600 000 breeding broiler layers, 40 million broilers and around 1.2 million turkeys. There are also 22 000 breeding commercial layers and around 1.7 million layers for egg production. The existing poultry production capacities are greater, however they are not fully exploited. Egg production is intensive in large companies and on family farms. There is also extensive and semi-intensive seasonal production on family infields. Around 30% of egg production is realized within semi-intensive systems and 70% within intensive production systems.

Source: Kralik G. at al, Current condition and development perspectives of poultry production in Croatia. [http://www.cabi.org/animalscience/Uploads/File/AnimalScience/additionalFiles/WPSAAntalyaTurkey2009/9\\_kralik\\_mps2009.pdf](http://www.cabi.org/animalscience/Uploads/File/AnimalScience/additionalFiles/WPSAAntalyaTurkey2009/9_kralik_mps2009.pdf)

### 2.1.3.2 *Criteria and risk factors for risk based surveillance(1)*

(max. 32000 chars) :

n/a

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- (1) Including maps showing target sampling sites identified as being particularly at risk for the introduction of avian influenza virus, taking into account criteria set out in point 4 of Annex I to Commission Decision 2010/367/EC.

### 2.2 Target populations (2)

(max. 32000 chars) :

n/a

- (2) including MS specific exceptional circumstances as described in Annex I point 3 of Commission Decision 2010/367/EU)

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### 2.2.1 POULTRY HOLDINGS (a) (except ducks, geese and farmed game birds (waterfowl e.g. mallards) to be sampled

Serological investigation according to Annex I to Commission Decision 2010/367/EU

Targets for year **2016**

Category : laying hens

**delete this category**

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of tests	Method of laboratory analysis
Hrvatska	137	53	20	1 060	HI-test (H5)
Hrvatska	137	53	20	1 060	HI-test (H7)
<b>Total</b>				2 120	
<b>Add a new row</b>					

(a) Holdings or herds or flocks or establishments as appropriate.  
 (b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested  
 (c) Total number of holdings of one category of poultry in concerned NUTS 2 region.



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Category : free range laying hens

**delete this category**

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of tests	Method of laboratory analysis
Hrvatska	11	11	10	110	HI-test (H5)
Hrvatska	11	11	10	110	HI-test (H7)
<b>Total</b>				220	
<b>Add a new row</b>					

(a) Holdings or herds or flocks or establishments as appropriate.

(b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested

(c) Total number of holdings of one category of poultry in concerned NUTS 2 region.

Category : chicken breeders

**delete this category**

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of tests	Method of laboratory analysis
Hrvatska	52	42	15	630	HI-test (H5)
Hrvatska	52	42	15	630	HI-test (H7)
<b>Total</b>				1 260	
<b>Add a new row</b>					

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(a) Holdings or herds or flocks or establishments as appropriate.

(b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested

(c) Total number of holdings of one category of poultry in concerned NUTS 2 region.

Category : fattening turkeys

**delete this category**

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of tests	Method of laboratory analysis
Hrvatska	37	35	10	350	HI-test (H5)
Hrvatska	37	35	10	350	HI-test (H7)
<b>Total</b>				700	
<b>Add a new row</b>					

(a) Holdings or herds or flocks or establishments as appropriate.  
 (b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested  
 (c) Total number of holdings of one category of poultry in concerned NUTS 2 region.

Category : turkey breeders

**delete this category**

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of tests	Method of laboratory analysis
Hrvatska	11	11	10	110	HI-test (H5)
Hrvatska	11	11	10	110	HI-test (H7)

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<b>Total</b>				220	
<b>Add a new row</b>					
(a)	<i>Holdings or herds or flocks or establishments as appropriate.</i>				
(b)	<i>Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested</i>				
(c)	<i>Total number of holdings of one category of poultry in concerned NUTS 2 region.</i>				

Category : farmed game birds (gallinaceous)

**delete this category**

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of tests	Method of laboratory analysis
Hrvatska	2	2	10	20 HI-test (H5)	<b>X</b>
Hrvatska	2	2	10	20 HI-test (H7)	<b>X</b>
<b>Total</b>				40	
<b>Add a new row</b>					
(a)	<i>Holdings or herds or flocks or establishments as appropriate.</i>				
(b)	<i>Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested</i>				
(c)	<i>Total number of holdings of one category of poultry in concerned NUTS 2 region.</i>				

Category : backyard flocks

**delete this category**

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of tests	Method of laboratory analysis
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Hrvatska	314	60	10	600	HI-test (H5)	<b>X</b>
Hrvatska	314	60	10	600	HI-test (H7)	<b>X</b>
Hrvatska	314	2	20	40	PCR test	<b>X</b>
Hrvatska	314	1	2	2	Virus isolation test	<b>X</b>
<b>Total</b>				1 242		
<b>Add a new row</b>						

(a) Holdings or herds or flocks or establishments as appropriate.

(b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested

(c) Total number of holdings of one category of poultry in concerned NUTS 2 region.

**Add a category**

Totals	Total number of tests	
<b>Total poultry 2016</b>	5 802	

2.2.2 DUCKS ,GEESE AND FARMED GAME BIRDS (WATERFOWL e.g. MALLARD) HOLDINGS (a) to be sampled.

Serological investigation according to Annex I to Commission Decision 2010/367/EU

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Targets for year

2016

Category : duck breeders

delete this category

NUTS (2) (b)	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	Method of laboratory analysis
Hrvatska	27	27	20	540	HI-test (H5)
Hrvatska	27	27	20	540	HI-test (H7)
<b>Total</b>				1 080	
<b>Add a new row</b>					

(a) Holdings or herds or flocks or establishments as appropriate.

(b) Refers to the location of the holding of origin. In case NUTS (2) code can not be used, region as defined in the programme by the Member State is requested

Category : geese breeders

delete this category

NUTS (2) (b)	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	Method of laboratory analysis
Hrvatska	15	15	20	300	HI-test (H5)
Hrvatska	15	15	20	300	HI-test (H7)
<b>Total</b>				600	
<b>Add a new row</b>					

(a) Holdings or herds or flocks or establishments as appropriate.

(b) Refers to the location of the holding of origin. In case NUTS (2) code can not be used, region as defined in the programme by the Member State is requested

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Category : fattening ducks

**delete this category**

NUTS (2) (b)	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	Method of laboratory analysis
Hrvatska	40	40	20	800	HI-test (H5)
Hrvatska	40	40	20	800	HI-test (H7)
<b>Total</b>				1 600	
<b>Add a new row</b>					

(a) Holdings or herds or flocks or establishments as appropriate.  
 (b) Refers to the location of the holding of origin. In case NUTS (2) code can not be used, region as defined in the programme by the Member State is requested

Category : fattening geese

**delete this category**

NUTS (2) (b)	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	Method of laboratory analysis
Hrvatska	5	5	20	100	HI-test (H5)
hrvatska	5	5	20	100	HI-test (H7)
<b>Total</b>				200	
<b>Add a new row</b>					

(a) Holdings or herds or flocks or establishments as appropriate.  
 (b) Refers to the location of the holding of origin. In case NUTS (2) code can not be used, region as defined in the programme by the Member State is requested

**Add a category**

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NUTS (2) (b)	Total number of tests	
<b>Total ducks and geese and farmed game birds 2016</b>	3 480	

*TOTALS for Poultry (2.2.1) + Ducks and Geese (2.2.2) and farmed game birds for year :*

2016

Poultry + Ducks/Geese /farmed game birds	Total number of tests
Grand Total	9 282
Grand Total ELISA	0
Grand Total agar	0
Grand Total HI tests (H5)	4 620
Grand Total HI tests (H7)	4 620
Grand Total Virus Isolation test	2
Grand Total PCR test	40
Grand Total Other test	0
Grand Total Samplings	0

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### 2.3 *Sampling procedures, sampling periods and frequency of testing taking into account criteria set out in Annex I of Commission Decision 2010/367/EC*

*(max. 32000 chars) :*

Blood samples will be taken at farm level. Whenever possible samples will be taken at the slaughterhouse.

Sampling on poultry holdings included in the Program will be carried out once a year, during the period from 1 January to 31 December, 2016.

Bird samples shall be taken and submitted to the laboratory by authorised veterinarians.

Samples shall be taken from poultry during their production age or, in the case of fattening poultry, during the final fattening phase.

Samples may be taken during the vaccination of poultry against Newcastle disease (in accordance with the Annual Order).

Blood samples taken to check immunity against Newcastle disease may also be used for the surveillance of antibodies to AI virus subtypes H5 and H7.

At least 2 ml of blood (without anticoagulants) shall be taken.

During storage and transportation, the samples must be kept at a temperature not exceeding 4°C and they must be submitted to the national laboratory for avian influenza within 48 hours. If a sample cannot be transported to the national laboratory within this period, the blood serum must be separated, frozen, and sent to the laboratory in the frozen state.

Blood samples shall be sent to the following national laboratory:

Croatian Veterinary Institute

Poultry Centre

Heinzelova 55, Zagreb 10000

Contact telephones: 01/2441 392; 2441 394; 2440 211.

Fax: 01/2441 396.



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### 2.4. Laboratory testing : description of the laboratory tests used and follow up investigations taking into account criteria set out in the Diagnostic Manual for avian influenza (Common Decision 2006/437/EC)

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

The laboratory testing of samples shall be carried out by Poultry Centre of the Croatian Veterinary Institute, Heinzelova 55, Zagreb, which is the National reference laboratory for AI.

Standard haemagglutination-inhibition test for detection of AI antibodies of H5 and H7 subtypes is used according to the Council Directive 2005/94/EC, OIE Terrestrial Manual 2009 (Chapter 2.3.4.) and Diagnostic Manual for Avian Influenza (Official Gazette 99/2008).

For H5 subtype for initial testing teal/England/7894/06 (H5N3) antigen is used. All positives are to be tested with chicken/Scotland/59 (H5N1) antigen to eliminate N3 cross reactive antibodies; for H7 subtype for initial testing turkey/England/647/77 (H7N7) antigen is used. All positives are to be tested with African starling/983/79 (H7N1) antigen to eliminate N7 cross reactive antibodies. I

If standard antigens are not supplied by the EU AI reference laboratory, following antigen will be used instead: for H5 primary antigen is Av-R5371/Croatia/2007 (H5N1) and secondary antigen is Mallard/Croatia/1/2006 (H5N3), for H7 primary antigen is Av-R7152/Croatia/2007 (H7N2) and secondary antigen is Turkey/Italy/3560/1999 (H7N1).

The national reference laboratory shall:

- report all positive results to the Veterinary and Food Safety Directorate as soon as possible;
- report all negative results to the Veterinary and Food Safety Directorate once a month.

### 3. Description and implementation of the surveillance programme in wild birds

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### 3.1.1 Designation of the central authority in charge of supervising and coordinating the departments responsible for implementing the programme and relevant collaborating partners (e.g. epidemiologists, ornithologists, nature bird observation and hunter organisations).

(max. 32000 chars):

VFSD of the Ministry of Agriculture is the national competent authority responsible for supervision and coordination of implementation of the Program. Animal Health Protection Sector of the VFSD is responsible for developing the Program in coordination with AI laboratory expert as well as ornithologist from Croatian Veterinary Institute and Institute of Ornithology of the Croatian Academy of Sciences and Arts. Ornithologists take a major part in sampling and identification of a species of wild bird.

The implementation of the 2016 Programme for AI in Wild Birds will be the responsibility of the VFSD of the Ministry of Agriculture. The following institutions also participate in the implementation of the Programme:

- Croatian Veterinary Institute – Poultry Centre;
- Institute of Ornithology of the Croatian Academy of Sciences and Arts.

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

(max. 32000 chars):

The spatial distribution of the locations at which the survey for influenza virus in wild birds will be conducted in 2016. is shown on the Map provided in the attachment. Locations identified on the Map are areas in the country where abundance and diversity of birds, particularly water birds is significantly higher than on other areas in the country. Also on these locations a large number of different species of migratory birds (i.e. the sites are an important crossing of migration routes or a mixing sites of passage migrants from various areas) are present. It is expected that on such sites expected mortality or morbidity of wild birds is higher. Active searching and monitoring of dead or moribund wild birds in particular those of target species on such locations will allow for timely detection of HPAI of subtypes H5N1 in wild birds.

The following locations are of the main interest for active searching of dead or moribund wild birds:

Fish ponds

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1. «Draganic», Jastrebarsko
2. «Fish pond», Oriovac/Jelas Polje, Slavonski Brod
3. «Fish pond», Donji Miholjac
4. «Fish pond» Končanica, Daruvar
5. «Fish pond Grudnjak», 33515 Grudnjak
6. «Fish pond 1905» Našička Breznica, Našice
7. «Fish pond Poljana», Poljana / «Riba Garešnica», Garešnica
8. «Fish pond Česmi» (Narta, Siščani, Vukšinec, Blatnica) Dubrava, Kostanj bb / Narta
9. «Fish pond» Lipovljani, Novska

### Artificial water reservoirs

10. Varazdin - Drava
11. Donja Dubrava - Drava
12. Šoderica - Koprivnica

### Major wetland areas (nature parks)

13. Lonjsko Polje Nature Park
14. Kopački Rit Nature Park
15. Vransko Lake
16. Delta of the Neretva river

### Waste disposal area

17. Prudinec (Jakusevac, Zagreb)
18. Waste disposal area Kosambra, Porec.

Also taking into consideration experience during the occurrence of HPAI of subtype H5N1 in wild birds in Croatia in 2005 and 2006, the majority of dead birds submitted to the laboratory for testing were originating from these locations. On two locations mentioned above HPAI of subtype H5N1 was confirmed in wild birds in 2005 and 2006.

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### 3.1.3 Estimation of the local and/or migratory wildlife population

*(max. 32000 chars) :*

Estimation of size of wild birds populations in the country was done by ornithologist from Croatian Veterinary Institute and Institute of Ornithology of Croatian Academy of Sciences and Arts and it is summarized in the Table provided within the frame of the Program for 2015. It is also provided in the attachment of relevant program for 2016.

### 3.2 Design, criteria, risk factors and target population(3)

*(max. 32000 chars) :*

Passive surveillance scheme will be implemented in order to provide for laboratory investigation of moribund or wild birds found dead so to allow for timely detection of HPAI of subtypes H5N1 in wild birds. Active searching and monitoring of dead or moribund wild birds of target species will in particular be focused on locations where increased incidence of morbidity and/or mortality wild birds is expected to be observed easier than on other areas of the country (e.g. areas close to lakes and waterways, wetlands, ponds, sea, waste disposal area).

Target population are mainly migratory water birds that have been shown to be at a higher risk of becoming infected with and transmitting the HPAI H5N1 virus. Wild bird species to be targeted for sampling and testing will be those as listed in Part 2 of the Commission Decision 2010/367/EU, that are present in the country.

The working group (made up of ornithologists, virologists and epidemiologists) continuously monitor and provide for analysis of results of the Programme. The group also provide for instructions on sampling and submission of samples to the laboratory as well as information dissemination about

## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

water bird species that are the main target for passive surveillance for HPAI .

- (3) *Areas at risk (wetlands in particular where links with high density poultry populations), previous positive findings as referred to in point 2 of Part 1 of Annex II to Commission Decision 2010/367/EC should be taken into account and if possible complemented by a map.*

### 3.2.1 WILD BIRDS focused on target species

Investigations according to the surveillance programme set out in conformity with Part 2 of Annex II to Decision 2010/367/EC

*Targets for year*

**2016**

NUTS (2) code/region (a)	Total number of birds to be sampled	Estimated total number of samples to be taken for passive surveillance	Type of test	Number of tests
Hrvatska	100	200	PCR test	200
Hrvatska	5	5	Virus isolation test	5
<b>Total</b>				
<b>Add a new row</b>				

(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.*

## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

	Total number of tests
<b>Total number of tests</b>	205
<b>Total Virus isolation tests</b>	5
<b>Total PCR tests</b>	200
<b>Total Other tests</b>	0

### 3.3 Sampling procedures and sampling periods

*max 32000 chars :*

Sampling will be carried out in accordance with the Diagnostic Manual.

Samples from wild birds will be taken by skilled persons (mainly ornithologists) who are equipped for collection and transport of samples. The ornithologist shall determine the species and, if possible, the age and sex of each wild bird caught.

At least 5 sick/dead wild birds (or all if number of sick or dead wild birds is lower than 5) found on a location must be adequately sampled for virological examination (molecular detection /RT-PCR/ followed by virus isolation in case of positives).

In case adequate sampling can not be assured on the location, sick or dead wild birds must be collected as a whole and submitted to the AI laboratory. Cloacal and tracheal/oropharyngeal swabs and/or organs (brain, heart, lung, trachea, kidney and intestines) from wild birds found dead or moribund, must be taken.

An appropriately taken cloacal swab must be covered with a visible quantity of faeces.

If available, swabs may be placed in an antibiotic or specific virus transport medium so that they are fully immersed. Regardless of whether the swabs are submitted in a transport medium or not, they must be chilled.

If a transport medium is not available, the swab must be placed in a protective casing and submitted dry to the laboratory.

Samples must not be frozen unless absolutely necessary. If rapid transport (in transport medium at 4oC) is not guaranteed, the samples must be immediately frozen and then transported on dry ice to the laboratory.

Samples must be submitted to Croatian Veterinary Institute; Poultry Centre; Heinzelova 55, Zagreb 10000 (Contact telephones: 01/2441 392; 2441 394;

## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

2440 211) as soon as possible.

It is expected that majority of samples from dead or moribund wild birds will be taken during spring and in particular autumn migrations when birds are grouping but also during winter. During these periods of the year ornithologist are more frequently present on locations of interest.

### 3.4 *Laboratory testing : description of the laboratory tests used taking into account criteria set out in the Diagnostic Manual for avian influenza (Commission Decision 2006/437/EC)*

*max 32000 chars :*

Detection of AI viruses is carried out fully in accordance with the Council Directive 2005/94/EC and Diagnostic Manual for Avian Influenza (Official Gazette 99/2008).

Initial screening using M gene PCR shall be carried out, followed by rapid testing of positive findings for H5 which shall be carried out. In case of a positive finding for H5, an analysis of the cleavage site shall be undertaken to determine whether or not it has a highly pathogenic avian influenza or a low pathogenic avian influenza motif. Where H5 HPAI is confirmed, further analysis to determine the N type must be done rapidly, even though this can only provide evidence to eliminate N1.

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

*max 32000 chars :*

No evidence of HPAI viruses was observed in poultry during the last five years. Detailed data for poultry are listed in the appendices of this program.

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

*(max. 32000 chars) :*

No evidence of HPAI viruses was observed in wild birds during the last five years.

The last occurrence of HPAI of H5N1 subtype was detected in wild birds in March 2006. Description of introduction and spread of avian influenza A (H5N1) subtype in Croatia including seventeen isolates identified during the period from October 2005 to March 2006, is provided in the paper (Savic et al, 2009) Detailed data for wild birds are listed in the appendices of this program (for 2013 and 2014)

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

*(max. 32000 chars) :*

According to the Veterinary Act (Official Gazette 82/13, 148/13) article 18 and 19 owner of animals and any veterinarian is obliged to notify an infectious disease suspicion or a case. Disease notification procedures and forms are prescribed in details in the Ordinance on the notification of animal diseases (Official Gazette No 62/11, 114/11) which is fully aligned with Directive 82/894/EEC.

In case of notification of AI suspicion measures are applied in accordance with Ordinance on measures to control and eradicate avian influenza (Official Gazette No 131/06). This Ordinance is fully aligned with Council Directive 2005/94/EC of 20 December 2005 on Community measures for the control of avian influenza and repealing Directive 92/40/EEC; and the Ordinance on the diagnostic manual for avian influenza (Official Gazette No 99/08). This ordinance is fully aligned with Commission Decision 2006/437/EC of 4 August 2006 approving a Diagnostic manual for avian influenza as provided in Council Directive 2005/94/EC).

### 7. *Costs*



## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

### 7.1 Detailed analysis of the costs

#### 7.1.1 Poultry including ducks, geese and farmed game birds

*(max. 32000 chars) :*

Serological test: HI test for H5 and H7

- Number of samples per holding are calculated based on epidemiological unit.

10 samples are taken per epidemiological unit. Average number of epidemiological units per Laying hens is 2 and Chicken breeders holdings is 1,5 so sample size is increased by 2 and 1,5 times, respectively, on such holdings. According to the design and taking into account the number of epidemiological units it is expected that 4620 samples will be serologically tested within the frame of this Program.

Virological tests

- RT PCR test: it is assumed that some of samples might need to be further investigated due to positive serological test results. In such cases additional sampling for the purpose of virological investigation on a holding concerned will be performed. If we consider that two of the holdings will be positive and taking into account only further virological sampling, for that reason 40 RT PCR tests, 2 virus isolation tests are included in the costs (specified in the point 2.2.1 - poultry holdings in table backyard flocks.

#### 7.1.2 Wild birds

*(max. 32000 chars) :*

Virological testing

- Search for dead or moribund wild birds of target species will be carried out on 18 locations (specified under point 3.1.2).

It is assumed that on each location at least 5 dead or moribund wild birds will be found and submitted for laboratory investigation during the 2016.

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This will result around with 100 wild birds to be sampled and 200 samples (cloacal sample and tracheal or organ sample) to be virological tested.  
- In addition 5 virus isolation tests are included in the costs.

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### 7.2 Summary of the annual costs :

#### 7.2.1 Poultry surveillance including ducks, geese and farmed game birds

##### Detailed analysis of the cost of the programme - poultry

### Targets for year 2016

Laboratory testing					
Methods of laboratory analysis	Number of tests	Indicative unitary test cost (per method) in € (*)	Total cost (€)		
ELISA test	0	3.26	0		
agar gel immune diffusion test	0	1.8	0		
HI-Test for H5 (specify number of tests for H5)	4620	9.64	44536.8		
HI-Test for H7 (specify number of tests for H7)	4620	9.64	44536.8		
Virus isolation test	2	37.87	75.74		
PCR test	40	19.74	789.6		
Other test	0	0	0		
<b>Sampling</b>					
	Number of samples	Unitary cost in € (*)	Total cost (€)		

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Samples	0	1.19	0
Other measures			
Samples	Number of samples	Unitary cost in €	Total cost (€)
	4620	1.19	5497,8
<b>Add a new row</b>			
<b>Total poultry, duck, geese, farmed game birds Testing + Sampling + Other measures</b>			
95 436,74 €			

(\*) as per cofinancing decision for 2014 programmes

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### 7.2.2 Wild bird surveillance

#### Detail analysis of the cost of the programme - wild birds

#### Targets for year **2016**

Laboratory testing				
Methods of laboratory analysis	Number of tests	Unitary test cost (per method) in € (*)	Total cost (€)	
Virus isolation test	5	37.89	189.45	
PCR test	200	19.74	3948	
Other cost	0	0	0	
Delivery of wild animals				
Delivery of wild animals	No of wild birds	Eligible cost in € (*)	Total cost (€)	
	100	5	500	
Other measures				
Other measures	Number	Unitary cost in €	Total cost (€)	

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Other please specify here	0	0	0	<b>X</b>
			<b>Add a new row</b>	
<b>Total wild birds Testing + Delivery + Other measures</b>			4 637,45 €	

(\*) as per cofinancing decision for 2014 programmes

TOTALS for Poultry, duck, geese, farmed game birds (7.2.1) + WILD BIRDS (7.2.2) for year : 2016

<b>Grand Total Poultry, Ducks/Geese/Farmed game birds + WILD BIRDS</b>	100 074,19
<b>Total Cost</b>	

## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

### C. Financial information

#### 1. Identification of the implementing entities - financial circuits/flows

Identify and describe the entities which will be in charge of implementing the eligible measures planned in this programme which costs will constitute the reimbursement/payment claim to the EU. Describe the financial flows/circuits followed.

Each of the following paragraphs (from a to e) shall be filled out if EU cofinancing is requested for the related measure.

a) Implementing entities - **sampling**: who perform the official sampling? Who pays? (e.g. authorised private vets perform the sampling and are paid by the regional veterinary services (state budget); sampling equipment is provided by the private laboratory testing the samples which includes the price in the invoice which is paid by the local state veterinary services (state budget))

(max. 32000 chars):

Sampling is to be performed by an authorised veterinarian. Sampling and sampling delivering are paid by Ministry of Agriculture, VFSD (state budget). All sampling equipment is paid by state budget.

b) Implementing entities - **testing**: who performs the testing of the official samples? Who pays? (e.g. regional public laboratories perform the testing of official samples and costs related to this testing are entirely paid by the state budget)

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(max. 32000 chars) :

Authorised veterinary organisations according to delegated powers by All samples are tested in the official laboratories as well as NRL appointed by competent authority. Laboratory testing within official controls as well as routing sampling is fully financed from the state budget.

- c) Implementing entities - **compensation**: who performs the compensation? Who pays? (e.g. compensation is paid by the central level of the state veterinary services, or compensation is paid by an insurance fund fed by compulsory farmers contribution)

(max. 32000 chars) :

Activities regarding compensation are implemented and paid by the central level of the state veterinary services.

- d) Implementing entities - **vaccination** : who provides the vaccine and who performs the vaccination? Who pays the vaccine? Who pays the vaccinator? (e.g. farmers buy their vaccine to the private vets, send the paid invoices to the local state veterinary services which reimburse the farmers of the full amount and the vaccinator is paid by the regional state veterinary services)

(max. 32000 chars) :

N/A



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e) Implementing entities - **other essential measures**: who implement this measure? Who provide the equipment/service? Who pays?

(max. 32000 chars) :

N/A

### 2 Co-financing rate (see provisions of applicable Work Programme)

*The maximum co-financing rate is in general fixed at 50%. However based on provisions of Article 5.2 and 5.3 of the Regulation (EU) No 652/2014, we request that the co-financing rate for the reimbursement of the eligible costs would be increased:*

Up to 75% for the measures detailed below

Up to 100% for the measures detailed below

## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

### 3. Source of funding of eligible measures

All eligible measures for which cofinancing is requested and reimbursement will be claimed are financed by public funds.

*yes*

*no*

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## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

### Attachments

#### IMPORTANT :

- 1) The more files you attach, the longer it takes to upload them .
- 2) This attachment files should have one of the format listed here : .jpg, .jpeg, .tiff, .tif, .xls, .xlsx, .doc, .docx, .ppt, .pptx, .bmp, .png, .pdf.
- 3) The total file size of the attached files should not exceed 2.500Kb (+- 2.5 Mb). You will receive a message while attaching when you try to load too much.
- 4) IT CAN TAKE **SEVERAL MINUTES TO UPLOAD ALL THE ATTACHED FILES**. Don't interrupt the uploading by closing the pdf and wait until you have received a Submission Number!
- 5) Only use letters from a-z and numbers from 1-10 in the attachment names, otherwise the submission of the data will not work.

### List of all attachments

	Attachment name	File will be saved as (only a-z and 0-9 and -_)	File size
	6381_4029.xls	6381_4029.xls	59 kb
	6381_4030.doc	6381_4030.doc	96 kb
	6381_4031.xls	6381_4031.xls	35 kb
	6381_4032.doc	6381_4032.doc	94 kb
	6381_4033.doc	6381_4033.doc	215 kb
	6381_4034.xls	6381_4034.xls	58 kb
	6381_4035.doc	6381_4035.doc	313 kb

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	<b>6381_4036.lsx</b>	6381_4036.lsx	28 kb
	6381_4037.xls	6381_4037.xls	67 kb
	<b>6381_4038.ocx</b>	6381_4038.ocx	14 kb
	6381_4039.xls	6381_4039.xls	51 kb
	Total size of attachments :		1029 kb

**Attachments in RED have an attachment extension that is not allowed. Please remove the file, otherwise submission will not work.**