



## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds as referred to in Article 1(d)

Member States seeking a financial contribution from the Community for national programmes for the control and monitoring of avian influenza, shall submit applications containing at least the information set out in this form.

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- 6) For simplification purposes you are invited to submit multi annual programmes
- 7) As mentioned during the Plenary Task Force of 28/2/2014, you are invited to submit your programmes in English.

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Submission date

Wednesday, September 10, 2014 15:09:56

Submission number

1410354494742-3719



# ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds as referred to in Article 1(d)

## 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 :

2015

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### 1.1 Contact

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## 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 CDRA. 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 or surveillance based on representative sampling)*

*(max. 32000 chars) :*

AI surveillance based on representative sampling scheme will be implemented in 2015. 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 <sup>(a)</sup> (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 **2015**

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)                  | X |
| Hrvatska             | 137                         | 53                                     | 20                            | 1 060                 | HI-test (H7)                  | X |
| <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)                  | <b>X</b> |
| Hrvatska     | 11                          | 11                                     | 10                            | 110                   | HI-test (H7)                  | <b>X</b> |
| <b>Total</b> |                             |  |                               | 220                   |                               |          |

**Add a new row**

(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)                  | <b>X</b> |
| Hrvatska     | 52                          | 42                                     | 15                            | 630                   | HI-test (H7)                  | <b>X</b> |
| <b>Total</b> |                             |  |                               | 1 260                 |                               |          |

**Add a new row**

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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)                  | X |
| Hrvatska             | 37                          | 35                                     | 10                            | 350                   | HI-test (H7)                  | X |
| <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)                  | X |
| Hrvatska     | 11                          | 11                                     | 10                            | 110                   | HI-test (H7)                  | X |

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| Total   |  |  |  | 220           |  |
|---|--|--|--|---------------|--|
|   |  |  |  | Add a new row |  |
| <p>(a) Holdings or herds or flocks or establishments as appropriate.</p> <p>(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</p> <p>(c) Total number of holdings of one category of poultry in concerned NUTS 2 region.</p> |  |  |  |               |  |

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  | 11                          | 11                                     | 10                            | 110                   | HI-test (H5)                  | <b>X</b> |
| Hrvatska  | 11                          | 11                                     | 10                            | 110                   | HI-test (H7)                  | <b>X</b> |
| <b>Total</b>  |                             |  |                               | 220                   |                               |          |
|   |                             |  |                               | Add a new row         |                               |          |
| <p>(a) Holdings or herds or flocks or establishments as appropriate.</p> <p>(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</p> <p>(c) Total number of holdings of one category of poultry in concerned NUTS 2 region.</p> |                             |  |                               |                       |                               |          |

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)         | X |
| Hrvatska  | 314 | 60 | 10 | 600   | HI-test (H7)         | X |
| Hrvatska  | 314 | 5  | 20 | 200   | PCR test             | X |
| Hrvatska  | 314 | 1  | 15 | 15    | Virus isolation test | X |
| <b>Total</b>  |     |    |    | 1 415 |                      |   |
| <b>Add a new row</b>  |     |    |    |       |                      |   |
| <p>(a) Holdings or herds or flocks or establishments as appropriate.</p> <p>(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</p> <p>(c) Total number of holdings of one category of poultry in concerned NUTS 2 region.</p> |     |    |    |       |                      |   |

### Add a category

| Totals                    | Total number of tests |  |
|---------------------------|-----------------------|--|
| <b>Total poultry 2015</b> | 6 155                 |  |
|                           |                       |  |

### 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

2015

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)                  | X |
| Hrvatska             | 27                                      | 27  | 20                            | 540                   | HI-test (H7)                  | X |
| <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)                  | X |
| Hrvatska             | 15                                      | 15  | 20                            | 300                   | HI-test (H7)                  | X |
| <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)                  | X |
| Hrvatska  | 40                                      | 40  | 20                            | 800                   | HI-test (H7)                  | X |
| <b>Total</b>  |   |   |                               | 1 600                 |                               |   |
| <b>Add a new row</b>  |   |   |                               |                       |                               |   |
| <p>(a) Holdings or herds or flocks or establishments as appropriate.</p> <p>(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</p> |   |   |                               |                       |                               |   |

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  | 6                                       | 6   | 20                            | 120                   | HI-test (H5)                  | X |
| hrvatska  | 6                                       | 6   | 20                            | 120                   | HI-test (H7)                  | X |
| <b>Total</b>  |   |   |                               | 240                   |                               |   |
| <b>Add a new row</b>  |   |   |                               |                       |                               |   |
| <p>(a) Holdings or herds or flocks or establishments as appropriate.</p> <p>(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</p> |   |   |                               |                       |                               |   |

Add a category

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| NUTS (2) (b)                      | Total number of tests |
|-----------------------------------|-----------------------|
| <b>Total ducks and geese 2015</b> | 3 520                 |

TOTALS for Poultry (2.2.1) + Ducks and Geese (2.2.2) for year :

2015

| Poultry +Ducks/Geese                    | Total number of tests |
|---|-----------------------|
| <b>Grand Total</b>                      | 9 675                 |
| <b>Grand Total ELISA</b>                | 0                     |
| <b>Grand Total agar</b>                 | 0                     |
| <b>Grand Total HI tests (H5)</b>        | 4 730                 |
| <b>Grand Total HI tests (H7)</b>        | 4 730                 |
| <b>Grand Total Virus Isolation test</b> | 15                    |
| <b>Grand Total PCR test</b>             | 200                   |
| <b>Grand Total Other test</b>           | 0                     |
| <b>Grand Total Samplings</b>            | 0                     |

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### 2.3 Sampling procedures, sampling periods and frequency of testing

*(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, 2015.

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

*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 2015 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 2015. 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 2013. It is also provided in the attachment of relevant program for 2015.

### 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 as referred to in Article 1(d)

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 focussed on target species

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

Targets for year **2015**

| 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                 | 360                                 | 720  | PCR test             | 720             | X |
| Hrvatska                 | 30                                  | 30   | Virus isolation test | 30              | X |
| <b>Total</b>             |                                     |  |                      |                 |   |

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.*

(b) *General description of the wild birds are intended to be sampled in the framework of the active and passive surveillance.*

(c) *Voluntary, to be included for information purposes, not eligible for cofinancing.*

## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds as referred to in Article 1(d)

|                                    | Total number of tests |
|------------------------------------|-----------------------|
| <b>Total number of tests</b>       | 750                   |
| <b>Total Virus isolation tests</b> | 30                    |
| <b>Total PCR tests</b>             | 720                   |
| <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 as referred to in Article 1(d)

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

*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.

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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)

### 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*



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### 7.1 *Detailed analysis of the costs*

#### 7.1.1 *Poultry*

*(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 4730 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 five of the holdings will be positive and taking into account only further virological sampling, for that reason 200 RT PCR tests, 15 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 20 dead or moribund wild birds will be found and submitted for laboratory investigation during the 2015.

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This will result with 360 wild birds to be sampled and 720 samples (cloacal sample and tracheal or organ sample) to be virological tested.  
- In addition 30 virus isolation tests are included in the costs.

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### 7.2 Summary of the annual costs :

#### 7.2.1 Poultry surveillance

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

Targets for year **2015**

| 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) | 4 730             | 9.64   | 45597.2        |
| HI-Test for H7 (specify number of tests for H7) | 4 730             | 9.64   | 45597.2        |
| Virus isolation test                            | 15                | 37.87  | 568.05         |
| PCR test  | 200               | 19.74  | 3948           |
| Other test                                      | 0                 | 0  | 0              |
|   |                   |  |                |
| Sampling  |                   |  |                |
|   | Number of samples | Unitary cost in € (*)                              | Total cost (€) |

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|  |                   |                   |                      |          |
|--|-------------------|-------------------|----------------------|----------|
| Samples  | 4 850             | 1.19              | 5771.5               |          |
|  |                   |                   |                      |          |
| <b>Other measures</b>  |                   |                   |                      |          |
|  | Number of samples | Unitary cost in € | Total cost (€)       |          |
| Other please specify here                                    | 0                 | 0                 | 0                    | <b>X</b> |
|  |                   |                   | <b>Add a new row</b> |          |
|  |                   |                   |                      |          |
| <b>Total poultry<br/>Testing + Sampling + Other measures</b> | 14 525            |                   | 101 481,95 €         |          |

(\*) 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 **2015**

| Laboratory testing             |                  |   |                |
|--------------------------------|------------------|---|----------------|
| Methods of laboratory analysis | Number of tests  | Unitary test cost (per method) in € (*) | Total cost (€) |
| Virus isolation test           | 30               | 37.89                                   | 1136.7         |
| PCR test                       | 720              | 19.74                                   | 14212.8        |
| Other cost                     | 0                | 0                                       | 0              |
|                                |                  |   |                |
| Delivery of wild animals       |                  |   |                |
|                                | No of wild birds | Eligible cost in € (*)                  | Total cost (€) |
| Delivery of wild animals       | 360              | 5                                       | 1800           |
|                                |                  |   |                |
| Other measures                 |                  |   |                |
|                                | Number           | Unitary cost in €                       | Total cost (€) |

## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds as referred to in Article 1(d)

|   |      |   |               |   |
|---|------|---|---------------|---|
| Other please specify here                                       | 0    | 0 | 0             | X |
|   |      |   | Add a new row |   |
|   |      |   |               |   |
| <b>Total wild birds<br/>Testing + Delivery + Other measures</b> | 1110 |   | 17 149,50 €   |   |

(\*) as per cofinancing decision for 2014 programmes

TOTALS for Poultry (7.2.1) + Ducks and Geese (7.2.2) for year :

2015

|  |            |
|--|------------|
|  | Total Cost |
| <b>Grand Total Poultry + Ducks/Geese</b> | 118 631    |

### 7.3 Co-financing rate:

The maximum co-financing rate is in general fixed at 50%. However based on provisions of Article 5.2 and 5.3 of the Common Financial Framework, 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
- Not applicable

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*Please explain for which measures and why co-financing rate should be increased (max 32000 characters)*

Croatia gross national income per inhabitant based on the latest Eurostat data is less than 90% of the Union average

### 7.4 Source of national funding

*Please specify the source of the national funding:*

- public funds*
- food business operators participation*
- other*

*Please give details on the source of national funding (max 32000 characters)*

Source of national funding is provided in State budget of the Ministry of Agriculture

## ANNEX 4 : Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds as referred to in Article 1(d)

### Attachments

#### IMPORTANT :

- 1) The more files you attach, the longer it takes to upload them .
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|  | <b>3719_3268.lsx</b> | 3719_3268.lsx                                    | 25 kb     |
|  | 3719_3269.doc        | 3719_3269.doc                                    | 313 kb    |
|  | 3719_3270.doc        | 3719_3270.doc                                    | 96 kb     |
|  | 3719_3271.doc        | 3719_3271.doc                                    | 215 kb    |
|  | 3719_3272.xls        | 3719_3272.xls                                    | 35 kb     |
|  | <b>3719_3273.lsx</b> | 3719_3273.lsx                                    | 40 kb     |



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|--|--|--|-----------------------------|--------|
|  |  |  | Total size of attachments : | 818 kb |
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