



submitted for obtaining EU financial contribution

Annex IV: Programme for the surveillance of Avian Influenza in poultry and wild birds

Member States seeking an EU financial contribution for national programmes for eradication, control and surveillance of animal diseases and zoonosis shall submit online this document completely filled out by the 31 May of the year preceding its implementation (part 2.1 of Annex I to the Single Market Programme Regulation).

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- 5) For simplification purposes you are invited to submit multi-annual programmes.
- 6) You are invited to submit your programmes in English.

Document version number: 2022 1.0

Member state : BELGIQUE-BELGIE

Disease Avian Influenza

This program is multi annual :

Request of Union co-financing from beginning : To end of

Request year for multiannual programme :

1. Contact data

Name Phone

Email Your job type within the CA :

Submission Date

30/11/2022 14:30:15

Submission Number

1669815016969-18923



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

2. Description and implementation of the surveillance programme in poultry

2.1.1 Designation of the authorities in charge of supervising coordinating and implementing the programme. Please describe in details who designs, who implements, and who monitors the programme in poultry. (Roles of central authority, local authorities, vets, farmers, labs, hunting associations, etc.)

(max. 32000 chars) :

The central authority responsible for the design, the coordination and the implementation of the monitoring program for avian influenza is the Federal Agency for the Safety of the Food Chain (FASFC). Within the FASFC, the crisis prevention and management unit designs, coordinates and monitors the programme; the sampling is performed by the Agency's field people regarding poultry. The objectives of the programme are those described in the Commission Delegated Regulation (EU) 2020/689. For the poultry, active surveillance should detect low pathogenic avian influenza (LPAI) of subtypes H5 and H7.

2.1.2 Description of System in place for the registration of holdings

(max. 32000 chars) :

Holdings keeping more than 200 poultry at any given moment of the year, smaller holdings producing for the food chain and traders must all register in Sanitel, Belgium's official central identification and registration database. This registration is performed by either DGZ or ARSIA, the 2 regional associations for identification and registration of animals and holdings in Belgium. SANITEL comprises information regarding the major farmed species: cattle, small ruminants, deer, pigs, poultry and ratites. Sanitel is supervised by the FASFC and exploited/managed both by the FAFSC and the regional associations DGZ and ARSIA. Holdings producing for the food chain and traders also have to register as commercial operators in the FASFC's operators databank BOOD. Each year, all commercial poultry holdings have to complete a questionnaire in which they specify what species are kept, what capacity they have for each species, what type of housing is used and what arrangements in terms of biosecurity are put into place. This questionnaire is used to update the data in Sanitel and is also used as a basis for determining the sampling objectives of the AI surveillance programme in poultry. The tables in this document thus reflect the data registered in Sanitel at the end of March 22 and the figures provided in the questionnaires received at the end of 2021 and the beginning of 2022. These data and figures will most likely have changed by 2023 :

- currently registered holdings will not necessarily still be active in 2023,
- new holdings might have registered in the meantime,
- the species currently present in a registered holding may have changed by 2023.

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2.1.3 Design (risk based surveillance, or surveillance based on representative sampling taking into account criteria in Annex II of Commission Delegated Regulation (EU) 2020/689.

Provide justification for the choice of the design. Please refer also explicitly to the objectives of the surveillance programme as mentioned in section 2 of Annex II Commission Delegated Regulation (EU) 2020/689.

(max. 32000 chars) :

Since 2010, the FASFC has opted for a risk-based surveillance to determine the sampling objectives of the annual AI programme. This risk analysis was conducted by the Belgian animal health reference centre Sciensano (formerly known as CODA-CERVA), more particularly by its AI reference laboratory and its epidemiological unit.

The type of analysis used is a "scenario tree" as described by Martin et al. (Martin P.A., Cameron A.R., Greiner M., 2007; Demonstrating freedom from disease using multiple complex data sources, 1. a new methodology based on scenario trees; Prev. Vet. Med. 79, 71-97). The design chosen was considered the best for the Belgian situation.

2.1.3.1 Short description of predominant poultry population and types of poultry production.

Please provide also a table with the number of poultry holdings and birds existing for each poultry type, and map with the geographic distribution and density of poultry holdings. (If not available, please explain)

(max. 32000 chars) :

The Belgian poultry population is very diverse. Nevertheless, the main species kept is chicken, consisting in breeding hens (both for broilers and laying hens, about 5 millions birds), laying hens (about 12,5 millions birds) and broilers (about 40 millions birds).

Other species are much more marginal and comprise:

- geese (mainly breeding animals), about 2,000 birds;
- ducks (mainly fattening animals), about 75,000 birds;
- turkeys (mainly fattening animals), about 510,000 birds;
- pigeons (mainly fattening animals), about 5,000 birds;
- partridges (mainly fattening animals), about 75,000 birds;
- guinea fowl (mainly fattening animals), about 8,000 birds;
- pheasants (mainly fattening animals), about 95,000 birds;
- ratites (mainly fattening animals), about 2,000 birds;
- hobby poultry owned by traders, about 120,000 birds.

The majority of poultry is kept indoors. Only about 1 out of 4 holdings keep animals outdoors.

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2.1.3.2 Criteria and risk factors for risk based surveillance (1) Please describe the risk factors as regard the criteria set in Annex II of Commission Delegated Regulation (EU) 2020/689.

(max. 32000 chars) :

The following main criteria were taken into account in the risk analysis:

- The density of poultry and poultry holdings and the distance between holdings have been used to divide the country into 5 regions. The provinces of East Flanders, West Flanders and Antwerp are each considered as separate regions because of the high densities observed. The other 7 provinces have been divided into two lower risk regions. A map showing the 5 regions is attached.
- Holdings rearing in open-air are considered as a high risk factor since this allows contact with wild birds.
- Holdings situated in so-called high risk areas are considered to be at higher risk. These high risk areas are lakes, ponds, rivers, canals and other water surfaces that are frequented by wild waterfowl and migratory birds (see also point 5.2). The high risk areas are listed and mapped on FASFC's website (www.favv.be/ai-ia/ai-city/zones_fr.asp). A map is also attached.
- Holdings keeping ducks, geese or turkeys are considered to be at higher risk; ducks and geese because of their role as natural reservoir for AI and turkeys because of their higher sensitivity to AI.

In addition, in view of the AI outbreaks in 2017 and the ND outbreaks in 2018, traders in hobby poultry are also considered to be at higher risk and are therefore included in the programme.

(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 Annex II of Commission Delegated Regulation (EU) 2020/689.

2.2 Target populations

Please explain:

- 1) The strategy of selection of the holdings to be sampled. (Random, risk based, geographic distribution)
- 2) The number of holdings sampled, with regard to the minimum requirements set in Annex II section 9 to Commission Delegated Regulation (EU) 2020/689.
- 3) The number of samples taken in each holding with regard to the minimum requirements set in Annex II section 9 to Commission Delegated Regulation (EU) 2020/689.

(max. 32000 chars) :

The strategy of selection of the holdings to be sampled is based on the risk analysis specified in point 2.1.3 and 2.1.3.2.

The various species of poultry included in the AI surveillance programme are split up into 4 sampling categories with decreasing risk profile based on the above criteria:

- category 1: ducks and geese,
- category 2: turkeys,
- category 3: breeding hens and laying hens,

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- category 4: fattening pigeons, pheasants, partridges and guinea fowl.

Broilers are excluded from this program because of their short life cycle (max. 7 weeks of age).

The number of holdings sampled and the number of samples taken in each holding are specified in points 2.2.1, 2.2.2 and 2.3.

The number of samples taken per farm will depend on the sampling category:

- category 1 (ducks and geese): 20 samples;
- categories 2, 3 and 4 (turkeys , hens, pheasants, pigeons, partridge and guinea fowl): 10 samples.
- traders in hobby poultry (all species): 20 samples.

In the case of the traders, the sampling size has been determined based on practical experience with this type of operator during the 2018 ND and 2017 AI epidemics.

The samples will be randomly distributed within the group of birds belonging to the category sampled. When several sampling categories are present on the same holding, only the highest risk category (cat.1 > cat.2 > cat.3 > cat.4) will be sampled, on the condition that a sufficient number of animals is present in this category.

In the case of traders, no distinction is made between the species.

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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

2023

Category : laying hens

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
BE21	37	29	10	290	290	ELISA test	X
BE22	18	14	10	140	140	ELISA test	X
BE23	18	14	10	140	140	ELISA test	X
BE24	1	1	10	10	10	ELISA test	X
BE25	42	33	10	330	330	ELISA test	X
BE31	2	2	10	20	20	ELISA test	X
BE32	10	8	10	80	80	ELISA test	X
BE33	8	6	10	60	60	ELISA test	X

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BE34	5	4	10	40	40	ELISA test	X
BE35	2	2	10	20	20	ELISA test	X
Total					1 130		

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 : free range laying hens

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
BE21	17	13	10	130	130	ELISA test	X
BE22	7	5	10	50	50	ELISA test	X
BE23	7	5	10	50	50	ELISA test	X
BE24	9	7	10	70	70	ELISA test	X
BE25	19	15	10	150	150	ELISA test	X
BE31	7	5	10	50	50	ELISA test	X
BE32	26	20	10	200	200	ELISA test	X
BE33	17	13	10	130	130	ELISA test	X
BE34	21	16	10	160	160	ELISA test	X

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BE35	26	10	10	100	100	ELISA test	X
Total					1 090		
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 : chicken breeders

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
BE21	58	58	10	580	580	ELISA test	X
BE22	9	9	10	90	90	ELISA test	X
BE23	31	31	10	310	310	ELISA test	X
BE25	82	82	10	820	820	ELISA test	X
BE31	2	2	10	20	20	ELISA test	X
BE32	14	14	10	140	140	ELISA test	X
BE33	5	5	10	50	50	ELISA test	X
BE34	2	2	10	20	20	ELISA test	X
BE35	2	2	10	20	20	ELISA test	X
Total					2 050		

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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 : fattening turkeys

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
BE21	1	2	10	20	20	ELISA test	X
BE23	5	10	10	100	100	ELISA test	X
BE24	1	2	10	20	20	ELISA test	X
BE25	25	50	10	500	500	ELISA test	X
BE32	2	4	10	40	40	ELISA test	X
BE33	1	2	10	20	20	ELISA test	X
BE35	1	2	10	20	20	ELISA test	X
Total					720		

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.

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Category : farmed game birds (gallinaceous)

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
BE22	5	10	10	100	100	HI-test (H5)	X
BE22	5	0	0	0	100	HI-test (H7)	X
BE23	2	4	10	40	40	HI-test (H5)	X
BE23	2	0	0	0	40	HI-test (H7)	X
BE25	2	4	10	40	40	HI-test (H5)	X
BE25	2	0	0	0	40	HI-test (H7)	X
BE31	1	2	10	20	20	HI-test (H5)	X
BE31	1	0	0	0	20	HI-test (H7)	X
Total					400		

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.

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Category : PIGEONS AND GUINEA FOWL

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
BE22	1	2	10	20	20	HI-test (H5)	X
BE22	1	0	0	0	20	HI-test (H7)	X
BE23	3	5	10	50	50	HI-test (H5)	X
BE23	3	0	0	0	50	HI-test (H7)	X
BE25	2	3	10	30	30	HI-test (H5)	X
BE25	2	0	0	0	30	HI-test (H7)	X
BE31	1	1	10	10	10	HI-test (H5)	X
BE31	1	0	0	0	10	HI-test (H7)	X
BE32	2	3	10	30	30	HI-test (H5)	X
BE32	2	0	0	0	30	HI-test (H7)	X
BE33	1	2	10	20	20	HI-test (H5)	X
BE33	1	0	0	0	20	HI-test (H7)	X
BE34	1	1	10	10	10	HI-test (H5)	X
BE34	1	0	0	0	10	HI-test (H7)	X
BE35	4	8	10	80	80	HI-test (H5)	X
BE35	4	0	0	0	80	HI-test (H7)	X

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Total					500	
						Add a new row
<p>(a) <i>Holdings or herds or flocks or establishments as appropriate.</i></p> <p>(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></p> <p>(c) <i>Total number of holdings of one category of poultry in concerned NUTS 2 region.</i></p>						

Category : TRADERS HOBBY POULTRY

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
BELGIUM	180	100	20	2 000	2 000	ELISA test	X
Total					2 000		
						Add a new row	
<p>(a) <i>Holdings or herds or flocks or establishments as appropriate.</i></p> <p>(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></p> <p>(c) <i>Total number of holdings of one category of poultry in concerned NUTS 2 region.</i></p>							

Category : RETESTING SEROPOSITIVE POULTRY HOLDINGS

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

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NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
BELGIUM	745	0	0	0	45	HI-test (H5)	X
BELGIUM	745	0	0	0	45	HI-test (H7)	X
BELGIUM	745	5	60	300	100	PCR test	X
BELGIUM	745	0	0	0	5	Virus isolation test	X
Total					195		

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.

Add a category

Totals	Total number of tests	Total number of samples
Total poultry 2023	8 085	7 740

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

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

Targets for year

2023

Category : fattening ducks

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

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 samples	Total number of tests	Method of laboratory analysis	
BE22	1	2	20	40	40	ELISA test	X
BE23	1	2	20	40	40	ELISA test	X
BE25	2	4	20	80	80	ELISA test	X
BE31	3	6	20	120	120	ELISA test	X
BE32	4	8	20	160	160	ELISA test	X
BE33	3	6	20	120	120	ELISA test	X
BE35	2	4	20	80	80	ELISA test	X
Total					640		
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 (2) code can not be used, region as defined in the programme by the Member State is requested

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Category : geese breeders

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

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 samples	Total number of tests	Method of laboratory analysis	
BE23	1	2	20	40	40	ELISA test	X
BE25	1	2	20	40	40	ELISA test	X
BE35	1	2	20	40	40	ELISA test	X
Total					120		
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 (2) code can not be used, region as defined in the programme by the Member State is requested</p>							

Category : RETESTING SEROPOSITIVE DUCKS AND GEESE HOLDING

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

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 samples	Total number of tests	Method of laboratory analysis	
BELGIUM	19	0	0	0	500	HI-test (H5)	X
BELGIUM	19	0	0	0	250	HI-test (H7)	X
BELGIUM	19	5	60	300	100	PCR test	X
BELGIUM	19	0	0	0	10	Virus isolation test	X
Total					860		
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 (2) code can not be used, region as defined in the programme by the Member State is requested*

Add a category

Totals	Total number of tests	Total number of samples
Total ducks and geese and farmed game birds 2023	1 620	1 060

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

2023

Poultry + Ducks/Geese /farmed game birds	Total number of tests
Grand Total	9 705
Grand Total ELISA	7 750
Grand Total agar	0
Grand Total HI tests (H5)	995
Grand Total HI tests (H7)	745
Grand Total Virus Isolation test	15
Grand Total PCR test	200
Grand Total Samplings	8 800

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2.3 Sampling procedures, sampling periods and frequency of testing taking into account criteria set out in Annex II of Commission Delegated Regulation (EU) 2020/689.

For each poultry category please detail the place of sampling (holding or slaughterhouse), the period and frequency of the testing, and who is in charge of the sampling.

(max. 32000 chars):

The sampling of the selected holdings will take place between 1 January 2023 and 31 December 2023. The sampling will be performed by veterinarians of the FASFC; in the case of holdings of breeding hens, the sampling will be performed by technicians of DGZ and ARSIA. Holdings with ducks, geese or turkeys, holdings that are located in higher risk areas and holdings that rear free-range birds will be sampled twice per year, spaced by three months at least. Other holdings will only be sampled once per year. In case of unfavourable serological results, additional sampling of the holding will be performed, consisting in a further samples of 60 animals for a virological analysis and possibly a serological analysis where relevant.

2.4. Laboratory testing: description of the laboratory tests used.

Please describe the tests to be used and their purpose (screening test or confirmatory test or follow-up investigations) for each category of poultry.

Please explain the number of tests calculation for each poultry category, and if it is in line with Annex II to Commission Delegated Regulation (EU) 2020/689.

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

All analysis will be performed by the AI national reference laboratory based at Sciensano (formerly known as CODA-CERVA). Sera from chickens, turkeys, ducks and geese will be subjected to a first-line ELISA assay and, when the ELISA assay is non-compliant, to a confirmatory haemagglutinin inhibition (HI) assay for H5 and H7 strains. Based on what has been observed in the previous years, generally a confirmatory HI test will have to be performed in about 1% of the chicken samples and

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about 35% of goose and duck samples.

Sera from pheasant, partridge, guinea fowl and pigeons - species for which the ELISA has not been validated - are directly subjected to HI assays for H5 and H7.

The following strains, provided by the Community Reference Laboratory in Weybridge, are used in the HI assays:

a) for the H5 subtype:

- i) initial screening with the Teal/England/7894/06 strain (H5N3);
- ii) positives are retested with the Chicken/Scotland/59 (H5N1) to eliminate cross-reactive antibodies for N3;

b) for H7 subtype:

- i) initial screening with the Turkey/England/647/77 strain (H7N7);
- ii) positives are tested with the African Starling/983/79 strain (H7N1) to eliminate cross-reactive antibodies for N7.

For ducks and geese only, in addition to the H5N3 strain, the H5N8 strain is also included in the confirmatory haemagglutinin inhibition (HI) assay used. The use of this new antigen follows the recommendation of the EU Reference Laboratory after the detection of H5N8 outbreaks in poultry holdings and H5N8 cases in wild birds in the EU.

In case of unfavourable serological results potentially indicating the presence of a H5 or H7 virus, the additional samples taken in the holding involved will be analysed using the RT-PCR and/or virus isolation assay and, where relevant, the ELISA and/or haemagglutinin inhibition assays. Where possible, these samples are pooled.

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

3.1.1 *Designation of the authorities in charge of supervising, coordinating, and implementing the programme and relevant collaborating partners (e.g. epidemiologists, ornithologists, nature bird observation and hunter organisations).*

Please describe in detail who designs, who implements, and who monitors the programme in wild birds.

Please detail the system in place to detect the dead wild birds; please explain who delivers the wild birds to the laboratory.

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(max. 32000 chars) :

The central authority responsible for the design, the coordination, the implementation of the monitoring program for avian influenza is the Federal Agency for the Safety of the Food Chain (FASFC), and more specifically its crisis prevention and management unit and its directorate general for control. Furthermore, collaborators of public institutions and regional authorities, hunters, ornithologists and wild bird refuges contribute in the network responsible for notifying and collecting the dead birds.

The monitoring program is implemented at the regional level under the responsibility of the following regional authorities:

- for the Brussels capital region, the public authority is 'Brussels Environment' (www.leefmilieu.brussels),
- for the Flemish region, the public authority is the Agency for Nature and Forests (www.natuurenbos.be),
- for the Walloon Region, Public Service of Wallonia, Department of Nature and Forests (www.spw.wallonie.be).

In addition, in the framework of the active surveillance organized in wild birds caught at ringing activities or shot at hunting activities, ornithologists of the Royal Belgian Institute of Natural Sciences and collaborators of the wild life surveillance group of the Université de Liège collect samples.

The objective of the passive surveillance in wild birds is the timely detection of HPAI to protect poultry in poultry holdings and safeguard veterinary public health.

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

(max. 32000 chars) :

The whole country is included in the surveillance programme, but the high risk areas mentioned in point 2.1.3.2 are targeted more. These high risk areas are lakes, ponds, rivers, canals and other water surfaces that are frequented by wild waterfowl and migratory birds as listed in the decision 2010/367/CE. A high risk area consists in the water body itself surrounded by a supplementary zone with a width of 1 km. The selected sites are those where pluriannual counts of birds have shown the presence of at least 0.1% of the average winter population of wild water birds. These higher risk areas are listed and mapped on FASFC's website (www.favv.be/ai-ia/ai-city/zones_fr.asp).

3.1.3 Estimation of the local and/or migratory wildlife population

Please provide main species, number of birds, migratory routes, geographic distribution or risk areas.

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(max. 32000 chars):

The population of wild water birds overwintering in Belgium is regularly counted by ornithologist from different official research institutes and wildlife authorities and by networks of volunteers. The number of migratory birds is estimated at around 600,000 in winter (ref.: Jacob, J.-P., Paquet, J.-Y., Devos, K. & Onkelinx, T. (2013). 50 ans de dénombrements hivernaux des oiseaux d'eau en Wallonie et à Bruxelles. Aves 50/4 :195-220.). Different species are involved, including water fowl. Due to the layout of the countryside and the pressure caused by the high density of human habitation, suitable wintering environment for larger troops of water birds is scarce. Therefore, most migratory birds reside in a limited number of locations. These locations with high concentrations of migratory water fowl correspond to the so-called "high risk areas" that are targeted in the Belgian monitoring programme for wild birds.

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

(max. 32000 chars):

The Belgian surveillance plan is based on the specific surveillance of abnormal mortality in wild birds (passive monitoring). The targeted species were selected by Belgian ornithologists and virologists based on specific local species and the species mentioned in the list of the EURL. These experts also defined for each species the thresholds for an "abnormal" mortality. These thresholds avoid congestion of the national reference laboratory with irrelevant cases of mortality due to other pathologies.

The notification of mortality is mainly made by collaborators of public institutions and regional authorities, hunters, ornithologists and wild bird refuges. In addition, cases of mortality in wild birds can also be notified by the general public through a specific hotline. Where a notification corresponds to the criteria of "abnormal" mortality, collaborators of the competent regional authorities for nature conservancy or the responsible person of the bird refuge involved will collect the carcasses and will send them to the national reference laboratory for analysis. On average, every year several hundred wild birds are collected.

In addition to the passive surveillance, an active surveillance consisting in the sampling (cloaca swab) of live birds caught at ringing activities or shot at hunting activities is performed by ornithologists of the Royal Belgian Institute of Natural Sciences and collaborators of the wild life surveillance group of the Université de Liège. This part of the programme is not presented for cofinancing by the EC.

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(3) Areas at risk (wetlands in particular where links with high density poultry populations), previous positive findings as referred to in Annex II to Commission Delegated Regulation (EU) 2020/689 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 conformity with Annex II to Commission Delegated Regulation (EU) 2020/689

Targets for year

2023

NUTS (2) code/region (a)	Total number of wild birds to be sampled	Estimated total number of wild birds to be samples for passive surveillance	Type of test	Number of tests	
BELGIUM	500	500	PCR test	500	X
BELGIUM	0	0	Virus isolation test	40	X
BELGIUM	0	0	necropsy	500	X
Total	500	500		1 040	

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.

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	Total number of tests
Total number of tests	1 040
Total Virus isolation tests	40
Total PCR tests	500
Total Other tests	500
Total number of wild birds to be sampled for passive surveillance	500

3.3 *Sampling procedures and sampling periods*

Please also explain which samples are taken from wild birds

max 32000 chars :

The surveillance in wild birds will take place from 1 January 2021 to 31 December 2021 and from 1 January 2022 to 31 December 2022.

Based on the numbers recorded from 2006 to 2020, it is estimated that the number of cases of abnormal mortality will be 500 at maximum. This projection is only valid if the epidemiological situation for AI will not change in the coming year and a half.

The dead birds are sent to the AI national reference laboratory based at Sciensano (formerly known as CODA-CERVA) where they are autopsied and sampled.

The swabs collected in the framework of the active surveillance are also sent to the AI national reference laboratory for analysis.

3.4 *Laboratory testing: description of the laboratory tests used .*

Please explain also which laboratory do the tests for the wild birds, and which, and how many tests are planned for each wild bird

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max 32000 chars :

Birds collected in the context of the passive surveillance are routinely autopsied. Tissue samples taken at necropsy will be subjected to a PCR analysis. In case of unfavourable results, a virus isolation test on embryonated eggs will be performed provided that the quality of the sample permits it.

The same analysis procedure (PCR, where relevant followed by a virus isolation assay) will apply to the swabs collected in the framework of the active surveillance programme.

4. *Short description of the epidemiological situation of the disease in poultry during the last five years*

max 32000 chars :

Surveillance programmes have been conducted each year since 2004 in the poultry herd. The results have consistently shown traces of occasional introduction of low pathogenic H5 and H7 viruses in the poultry herd. Before 2017, neither "classical" H5/H7 HPAI viruses nor H5N1/H5N8 HPAI viruses have been detected.

The following findings were recorded in the last five years:

- In 2017, HPAI virus H5N8 has been identified several times both in wild birds and in domestic birds. In captive birds, the HPAI virus H5N8 was identified a first time in February in birds from a hobby owner. The source of the contamination was contact with wild birds. 13 other cases were identified between 01 June and 7 July 2017. 11 of these cases involved birds of hobby owners and 2 concerned ornamental bird traders. An epidemiological link was established between 8 of the hobby owners and a trader, as well as between the 2 traders. In other cases, contacts with infected wild birds or unknown (indirect) contacts with the traders are suspected.
 - In 2018, antibodies against H5 were found in 4 duck holdings. No H5/H7 virus could be isolated.
 - In 2019, antibodies against H5 were found in one geese holdings and in one trader of hobby poultry. No H5/H7 virus could be isolated.
 - In 2020, HPAI virus H5N8 has been identified several times in wild birds and also in domestic birds from a hobby owner. HPAI virus H5N8 has been also identified in November in a commercial farm. LPAI virus H5N8 has been also identified in December in a commercial farm. The source of the contaminations was contact with wild birds.
- In 2021, HPAI viruses H5N8 and H5N1 have been identified several times in wild birds and also in domestic birds from hobby owners. HPAI viruses H5N1 and H5N8 have been also identified in commercial farms. LPAI virus H6N1 has been also identified in a commercial farm of ducks. The source of the contaminations was contact with wild birds.

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5. *Short description of the epidemiological situation of the disease in wild birds during the last five years*

(max. 32000 chars):

he active and passive monitoring programmes have been carried out in wild birds each year since 2005. Consistently, this programme has revealed the presence of different strains of LPAI virus in the wild bird population. The species involved were mainly ducks, geese, shorebirds, terns and gulls.

The following findings were recorded in the last five years:

- In 2017, 2,472 samples collected in 2,361 live birds and 375 cases of abnormal mortality revealed the presence of LPAI viruses of the types H1, H2, H3, H5, H6, H7, H10 and H11. 6 cases of HPAI virus H5N8 were also identified in February and March.
- In 2018, a sample collected in 1,290 live birds and 237 cases of abnormal mortality revealed the presence of LPAI viruses of the types H1, H2, H3, H4, H10 and H11.
- In 2019, a sample collected in 1,064 live birds and 189 cases of abnormal mortality revealed the presence of LPAI viruses of the types H3, H4, H5 and H7.
- In 2020, a sample collected in 1,095 live birds and 281 cases of abnormal mortality revealed the presence of LPAI viruses of the types H3, H4, H5 and H12. 15 cases of HPAI virus H5N8 were also identified in November and December on found dead or moribund wild birds.
- In 2021, a sample collected in 448 live birds and 290 cases of abnormal mortality revealed the presence of LPAI viruses of the type H7. Several cases of HPAI viruses H5N8 and H5N1 were also identified on found dead or moribund wild birds.

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

Please explain also briefly the measures implemented in case of suspicion or confirmation of the disease

(max. 32000 chars):

1. Poultry

A poultry holder who observes disease or abnormal mortality in his poultry flock, must have the birds immediately examined by his farm veterinarian. If the veterinarian cannot exclude AI, he has to notify the FASFC immediately.

A poultry holder who observes:

- a reduction in normal water and food consumption by more than 20 %,
- a mortality rate of over 3% per week,
- an egg drop of more than 5 % for more than two consecutive days,

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- clinical signs or lesions indicative of avian influenza, cannot have a therapeutic treatment of the animals started unless samples are taken and sent to the laboratory for the exclusion of AI.

2. Wild birds

Mortality in wild birds is considered abnormal (i.e. suspect) if the two following conditions are met simultaneously:

- the dead birds respond to specific criteria regarding species and numbers:
 - swans (including mute swan), ducks, birds of prey: at least 1 animal found dead;
 - gulls, sterns and starlings: at least 10 animals found dead;
 - other species: at least 1 animal found dead;
- the dead birds are found in the same place and in the same time period.

In case of suspicion or confirmation of the disease, the measures implemented are the measures provided by Regulations (EU) 2016/429 and 2020/689.

7. Costs

7.1 Detailed analysis of the costs

7.1.1 Poultry including ducks, geese and farmed game birds

Please also check the consistency between the numbers mentioned in tables 2.2.1, 2.2.2, 7.2.1, and the information provided in box 2.3 and 2.4. Please comment also the cost-efficiency aspects of the programme

(max. 32000 chars):

The cost of the analysis given below is based on the prices of the 2022 programme. It should be noted that the real 2023 prices will very likely be subject to a raise compared to the 2022 laboratory prices.

The following prices are paid to the reference laboratory for the analysis:

- samples analyzed with the ELISA: € 6.1 per analysis;

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- samples analyzed with the haemagglutinin inhibition (HI) assays for H5 and H7: € 9.4 per HI;
- samples analyzed with the RT-PCR or virus isolation: €77.1 per analysis.

To keep down costs, where possible samples are pooled.

7.1.2 Wild birds

Please also check the consistency between the numbers mentions in tables 3.2.1, 7.2.2 and the information provided in box 3.3 and 3.4.

(max. 32000 chars):

The cost of the analysis given below is based on the actual prices of the 2022 programme. It should be noted that the real 2023 prices will very likely be subject to a raise compared to the 2022 laboratory prices.

The following prices are paid to the reference laboratory for the analysis:

- samples analyzed with the RT-PCR or virus isolation: €77.1 per analysis.
- For the collection of wild birds, it is the responsibility of the different regions in our country. In particular, the regions use subcontractors to manage the collection of wild birds found dead. They have annual contracts in which the amounts are fixed, regardless of the number of birds collected.

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

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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 in domestic poultry and ducks/geese are performed by FASFC's own staff and technicians of DGZ/ARSIA. All costs are paid for by FASFC. Sampling in wild birds is performed by staff of the regional authorities, the Royal Belgian Institute of Natural Sciences and wild bird refuge operators. All costs are paid for by the competent regional authorities (see point 3.1.1).

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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)

(max. 32000 chars):

All analysis is performed by the AI national reference laboratory based at Sciensano (formerly known as CODA-CERVA).

The costs are paid for:

- by the FASFC in the case of domestic poultry and ducks/geese;
- by the competent regional authority (see point 3.1.1) in the case of wild birds.

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):

Not applicable.

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):

Not applicable.

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

(max. 32000 chars):

Not applicable.

2. 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

3. Additional measures in exceptional and justified cases

In the "*Guidelines for the Union co-funded veterinary programmes*", it is indicated that in exceptional and duly justified cases, additional necessary measures can be proposed by the Member States in their application.

If you introduced these type of measures in this programme, for each of them, please provide detailed technical justification and also justification of their cost:

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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, pna, 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.

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