

## Eradication: Final report for Salmonella 2018

For each approved annual or multi-annual programme Member States shall submit to the Commission by the 30 April each year an annual detailed technical and financial report covering the previous year. That report shall include the results achieved and a detailed account of eligible costs incurred (Art 14 of Regulation (EU) No 652/2014).

This form is for information only, no submission possible.

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**Country code:** SI

### Reporting period

**From:** 2018

**To:** 2020

**Year of implementation:** 2018

## 1. Technical implementation of the programme

### **1.1 Description and evaluation of the evolution of the epidemiological situation, the technical implementation of the activities foreseen under the programme and the cost-effectiveness of the programme.**

#### BREEDING FLOCKS

In 2018, 130 adult parent breeding flocks and 104 rearing breeding flocks were included in SNCP. Salmonella spp. was not detected in any breeding flock. There are no grandparent and great grandparent flocks in the Republic of Slovenia.

As shown in the Table 1 – Trends of positive flocks (sheet 1 of attachment 1), since the beginning of the SNCP Slovenia was within the Union target for breeding flocks, except in 2011.

In adult breeding flocks targeted serovars were detected in 2008, 2011 and 2015. In 2008, S.Typhimurium was detected in one (1) adult breeding flock, and in 2011 in two (2) flocks. All positive S.Typhimurium flocks was linked to the same holding, where the production of breeding flocks was concluded in 2012. In 2015, S.Infantis was detected in one adult breeding flock.

Sampling at the initiative of business operators:

Rearing flocks: on arrival of day-old chicks to the holding, at the age of 4 weeks, and 2 weeks before moving to laying phase or laying unit in rearing flocks

Adult flocks: sampling at the initiative of FBO took place at the hatchery (3 holdings), or on the holding (4 holdings).

Sampling frequency: every 2 weeks if sampling took place at the hatchery / every 2 or every 3 weeks if

sampling took place on the holding (3 holdings – every 3 weeks and 1 holding every 2 weeks).

Official sampling was carried out in accordance with provisions of point 2.1.2 of Annex to Regulation (EU) No 200/2010:

- Three times on holdings where sampling at the initiative of FBO took place on the holding;
- Twice on the holdings and every 16 weeks at the hatchery where sampling at the initiative of FBO took place at the hatchery.

#### LAYING HEN FLOCKS

In 2018, 229 adult laying hen flocks and 159 rearing flocks were included in the SNCP. The presence of *Salmonella* spp. was detected in 11 adult laying hen flocks (4.80%), and thereof, the presence of targeted serovars was detected in 1 adult laying hen flocks (0.44%).

In 2008, the EU target was not achieved as the percentage of adult laying hen flocks was by 0.4 % above the EU target. The percentage of laying hen flocks being positive for target serovars decreased from 8.7% in 2008, to 0.5% in 2010. The percentage of flocks positive for targeted serovars was 0% to 1.12% in the period 2011-2015. In 2016, percentage of positive flocks increased to 1.42%, and decreased again in 2017 and 2018 to 0.92% and 0.44% respectively

Data on the number of laying hen flocks included in SNCP and the number of positive flocks in the period 2008-2018 are included in the Table 2 – Laying hen flocks (sheet 3 of attachment 1).

Sampling at the initiative of business operators was conducted in adult laying hen flocks every 15 weeks. Sampling in rearing flocks was conducted on arrival of day-old chicks to the holding and 2 weeks before transfer to laying phase or laying unit.

Official routine sampling was conducted at all the holdings with 1000 or more laying hens, and in approximately one third (1/3) of holdings with less than 1000 laying hens. Holdings with less than 1000 laying hens are included in the official sampling, as these holdings constitute approximately 40% of all holdings keeping adult laying hen flocks included in the SNCP. Additional official samplings were conducted in line with point 2.1 (b) of Annex to Regulation (EU) 517/2011 and point 4(b)(i) of Part D, Annex II to Regulation (EC) No 2160/2003.

Vaccination against *Salmonella* in breeding flocks and laying hen flocks is not mandatory in the Republic of Slovenia. Business operators may decide for voluntary vaccination, where all the costs linked to vaccination are fully against animal owners' accounts.

### **1.2 Details on the level of achievement of the targets set in the approved programme and technical difficulties.**

#### BREEDING FLOCKS

In 2018, 130 adult breeding flocks and 104 rearing breeding flocks were included in SCP.

Sampling at the initiative of business operators was conducted:

- in 121 adult flocks (42 adult breeding flocks on the holding, and in 79 adult breeding flocks at the hatchery, except in cases of export of or trade in hatching eggs);
- 104 rearing breeding flocks at the holding

Nine (9) flocks were not sampled by FBO at the hatchery as first eggs were hatched in 2019 (the first official sampling of that flocks was carried out on the holding in 2018)

Official sampling was conducted in 130 adult flocks:

- a) on the holding at the beginning / end of production: 161 official samplings (322 boot swab samples tested)
- b) on the holding between first and last official sampling: 29 official samplings (58 boot swab samples tested)
- c) every 16 weeks at the hatchery: 89 official samplings (89 eggshell samples tested)
- d) at the holding instead of sampling at hatchery if hatching eggs were not present at the hatchery due to trade or export of eggs: 11 official samplings (22 boot swab samples tested)

In total, 290 official samplings were conducted, and 491 official samples were tested (402 bootswab samples and 89 eggshell samples).

Serotyping was conducted on 2 isolates obtained from the official samples (boot swab samples): both isolates were confirmed as vaccine strain of *S. Enteritidis*.

Data on the number of officially sampled flocks, and the number of official samples tested, divided per particular types of official sampling is presented in Attachment 2

## LAYING HEN FLOCKS

Sampling at the initiative of business operators was conducted 229 adult laying hen flocks and 159 rearing flocks.

Official routine sampling of adult laying hen flocks was conducted in 81 adult laying hen flocks, and thereof, in 64 flocks at all the holdings with 1000 or more laying hens, and in 17 flocks at holdings with less than 1000 laying hens. Within the official routine sampling two samples were tested as a pooled sample, and an additional sample was tested separately (2 tests/flock). In total, 162 boot swab/faeces samples were tested in 2018 within the official routine sampling.

Official sampling of adult laying hen flocks aged 24 +/- 2 weeks was conducted in 1 flock, which was housed in building where *S.Typhimurium* had been identified in the preceding flock. Within the official sampling 3 samples were taken, and tested individually (3 tests/flock). In addition, samples to verify the absence of use of antimicrobials was taken in the flock.

Targeted serovars were detected in one (1) adult laying hen flocks in 2018. On the holding with positive adult laying hen flock, the official veterinarian conducted the official inspection of the holding and instituted the measures laid down in Part D of Annex II to Regulation (EC) No 2160/2003. Official sampling in order to exclude the false-positive initial results was carried out, using the sampling protocol defined in point 4(b) of Part D of Annex II to Regulation (EC) No 2160/2003. There were 7 official samples taken, and tested separately (7 tests/flock). In addition, samples to verify the absence of use of antimicrobials, was taken in the flock.

*S. Enteritidis* and *S.Typhimurium* was confirmed in official samples (4 positive samples out of 7). Birds from positive flocks were killed. Altogether, 132 laying hens, and 710 eggs were destroyed in accordance with Regulation (EC) No 1069/2009.

In the case of *Salmonella* serovars for which the Union target is not defined restrictive measures are not laid down in the national legislation. Thus, the business operators were implement the measures that are defined in their own programmes.

Serotyping was conducted on 8 isolates obtained from the official samples: 4 isolates from official sampling in order to exclude the false-positive initial results (*S.Enteritidis* - 3x and *S.Typhimurium* - 1x), and 4 isolates from official routine sampling (*S.Ohio* - 3x and *S.Poano* - 1x).

Number of officially sampled adult laying hen flocks and number of samples tested per AFSVSPP Regional Offices are shown in Table 3 (attachment 3).

**1.3 Epidemiological maps for infection and other relevant data on the disease/activities (information on serotypes involved,...) (Please attach files of data using the PDF attachment feature) Use the textbox below to provide clarifications for the maps you attach, if needed.**

## ADULT BREEDING FLOCKS

In 2018, *Salmonella* spp. was not detected in any breeding flock.

## LAYING HEN FLOCKS

In 2018, the presence of *Salmonella* spp. was identified in 11 adult laying hen flocks, and thereof, in two (2) flocks *S.Ohio*, *S.Agona* and *S.Coeln* / *S.Poano*, *S.Senftenberg*, *S.Stanleyville*, *S.Kottobus* and *S.Enteritidis* + *S.Typhimurium* in a single flock. Out of 159 rearing flocks sampled within SCP, the presence of *Salmonella* spp. was detected in one (1) flock of day old chicks (*S.Agona*).

Within epidemiological investigation of the holding positive for *S.Enteritidis*+*Typhimurium*, additional samples were taken in order to detect source of infection e.g. samples of feed material, samples of an open-air runs and sample of domestic dog. Feed samples and sample of domestic dog were tested negative, sample of an open-air runs was tested positive (*S.Enteritidis*)

*Salmonella Enteritidis* was identified at the same holding in 2016. For this reason, the PFGE test was conducted for comparing isolates of *S.Enteritidis* detected in 2016 and 2018. The PFGE test showed that all the isolates of *S.Enteritidis* had the same pulsotype. This pulsotype was further compared to pulsotypes of 387 isolates of *S. Enteritidis* from the collection of the NRL for *Salmonella*. The pulsotype identified from all the isolates of *S. Enteritidis* was not unique, but belong to a large genetic group of isolates from different sources and time periods. The source of the *Salmonella* infection was therefore not identified.

## HUMAN CASES

The number of reported *Salmonella* human cases reached the culmination in 2003, where the incidence amounted to 201/100,000 inhabitants. Since 2004, the number of reported salmonellosis cases has been decreasing. In the period 2010 - 2013, the number of reported salmonellosis cases were between 300 -

400 cases per year. In 2014, the reported Salmonella cases in humans increased for 2.3 times, and most frequently isolated was S. Enteritidis, representing 71 % of all the Salmonella isolates. In the period 2015 - 2017, Salmonella cases in humans decreased again. Altogether, 401 Salmonella cases were reported in 2015, 311 cases in 2016, and 258 Salmonella cases in 2017. In 2018 (data for 2017 are preliminary). In 2017 most frequently isolated was S. Enteritidis, representing 35 % of all the Salmonella isolates. The share of S. Typhimurium amounted to 13,6%, followed by Salmonella group B (9,75), Salmonella spp. (8,9%), S. Coeln (5,8%) and S. Java (5,8%). The share of other serovars amounted to less than 3%. Data on the number of reported cases for 2018 are not yet available. According to preliminary data, no Salmonella outbreaks were reported in 2018.

## 2. Tables for Salmonella monitoring outcome of the year

VERY IMPORTANT: Please fill out the following tables with figures corresponding to measures performed during the implementing period (1/1 to 31/12).

	Number of adults flocks checked	Number of these flocks infected by a target serovar	Incidence
Breeding flocks of Gallus gallus	130	0	0 %
Laying hen flocks	229	1	0.44 %
Broiler flocks	0	0	%
Breeding flocks of turkeys	0	0	%
Fattening flocks of turkeys	0	0	%

**Table A - BREEDING FLOCKS OF GALLUS GALLUS**

No of flocks with more than 250 adult breeders of Gallus gallus	130
No of flocks covered by the programme - Rearing flocks	104
No of flocks covered by the programme - Adults	130
No of flocks checked by the Competent Authorities - Rearing flocks	0
No of flocks checked by the Competent Authorities - Adults	130
No of flocks checked by the FBO - Rearing flocks	104
No of flocks checked by the FBO - Adults	121
No of official visits to take samples - Routine (holding)	201
No of official visits to take samples - Routine (hatchery)	89
No of official visits to take samples - Confirmatory sampling	0
No of official visits to take samples - Efficacy of disinfection	0
Positive flocks (SE,ST,SH,SI,SV) - No of positive flocks - Rearing flocks	0
Positive flocks (SE,ST,SH,SI,SV) - No of positive flocks - Adults	0
Positive flocks (SE,ST,SH,SI,SV) - No of positive flocks depopulated - Rearing flocks	0
Positive flocks (SE,ST,SH,SI,SV) - No of positive flocks depopulated - Adults	0
Positive flocks (SE,ST,SH,SI,SV) - No of birds concerned - Rearing flocks	0
Positive flocks (SE,ST,SH,SI,SV) - No of birds concerned - Adults	0
Positive flocks (SE,ST,SH,SI,SV) - No of eggs - Heat treated	0
Positive flocks (SE,ST,SH,SI,SV) - No of eggs - Destroyed	0

**Table B - FLOCKS OF LAYING HENS**

No of holdings with more than 1,000 adult laying hens	65
No of flocks in these holdings - Rearing flocks	0
No of flocks in these holdings - Adults	171
No of holdings covered by the programme	156
No of holdings covered by the programme - Rearing flocks	159
No of holdings covered by the programme - Adults	229
Official checks - No of holdings with adult flocks checked	82
Official checks - No of adult flocks checked in these holdings	82
Official checks - No of pullet flocks checked in these holdings	0

FBO checks - No of holdings checked	156
FBO checks - No of adult flocks checked in these holdings	229
FBO checks - No of pullet flocks checked in these holdings	159
No of official visits to take samples - Routine	81
No of official visits to take samples - Confirmatory sampling	1
No of official visits to take samples - Specific samples	1
No of official visits to take samples - Competent authority samples	0
No of official visits to take samples - Efficacy of disinfection	0
Positive flocks (SE,ST) - No of positive flocks - Rearing flocks	0
Positive flocks (SE,ST) - No of positive flocks - Adults	1
Positive flocks (SE,ST) - No of positive flocks depopulated - Rearing flocks	0
Positive flocks (SE,ST) - No of positive flocks depopulated - Adults	1
Positive flocks (SE,ST) - No of birds concerned - Rearing flocks	0
Positive flocks (SE,ST) - No of birds concerned - Adults	132
Positive flocks (SE,ST) - No of eggs - Destroyed	710

### Table C - BROILER FLOCKS

No of holdings with more than 5,000 broilers	0
No of flocks produced in these holdings	0
No of holdings covered by the programme	0
No of flocks produced in these holdings	0
No of flocks checked (official checks)	0
No of flocks checked (FBO checks)	0
No of official visits to take samples - Routine	0
No of official visits to take samples - Efficacy of disinfection	0
No of positive flocks (SE,ST)	0

### Table D - BREEDING FLOCKS OF TURKEY

No of flocks with more than 250 adult breeding turkeys	0
No of flocks with elite, great grand parent, grand parents	0
No of flocks covered by the programme - Rearing flocks	0
No of flocks covered by the programme - Adults	0
No of flocks checked by the Competent Authorities - Rearing flocks	0
No of flocks checked by the Competent Authorities - Adults	0
No of flocks checked by the FBO - Rearing flocks	0
No of flocks checked by the FBO - Adults	0
No of official visits to take samples - Routine (holding)	0
No of official visits to take samples - Routine (hatchery)	0
No of official visits to take samples - Confirmatory sampling	0
No of official visits to take samples - Efficacy of disinfection	0
Positive flocks (SE,ST) - No of positive flocks - Rearing flocks	0
Positive flocks (SE,ST) - No of positive flocks - Adults	0
Positive flocks (SE,ST) - No of positive flocks depopulated - Rearing flocks	0
Positive flocks (SE,ST) - No of positive flocks depopulated - Adults	0
Positive flocks (SE,ST) - No of birds concerned - Rearing flocks	0
Positive flocks (SE,ST) - No of birds concerned - Adults	0
Positive flocks (SE,ST) - No of eggs - Heat treated	0
Positive flocks (SE,ST) - No of eggs - Destroyed	0

### Table E - FLOCKS OF FATTENING TURKEYS

No of holdings with more than 500 fattening turkeys	0
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No of flocks produced in these holdings	0
No of holdings covered by the programme	0
No of flocks produced in these holdings	0
No of flocks checked (official checks)	0
No of flocks checked (FBO checks)	0
No of official visits to take samples - Routine	0
No of official visits to take samples - Efficacy of disinfection	0
No of positive flocks (SE,ST)	0

**Table F - LABORATORY TESTS**

Laboratory tests on official samples	Nb of tests					
	Breeding flocks	Laying flocks	Broiler flocks	Breeding turkey flocks	Fattening turkey flocks	TOTAL
Microbiological tests	491	172	0	0	0	663
Serotyping tests	2	8	0	0	0	10
Disinfection efficacy tests	0	0	0	0	0	0
Antimicrobial detection tests	0	2	0	0	0	2

**Table G - VACCINATION**

	No of flocks in the vaccination programme	No of flocks vaccinated	No of birds vaccinated	No of doses administered
Breeders	0	0	0	0
Layers	0	0	0	0
Breeding turkeys	0	0	0	0
	0	0	0	0

COMMENT / ADDITIONAL CLARIFICATION