



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL
Unit 04 - Veterinary Control Programmes

SANCO/3840/2008

*Programmes for the eradication, control and monitoring of certain
animal diseases and zoonoses*

Control programme of Salmonella in breeding, laying and broiler flocks

Approved* for 2009 by Commission Decision 2008/897/EC

Malta

* in accordance with Commission Decision 90/424/EEC

**GENERAL REQUIREMENTS FOR THE NATIONAL SALMONELLA
CONTROL PROGRAMME IN EGG-LAYING FLOCKS OF GALLUS GALLUS
IN ACC. TO COMMISSION DECISION: 90/424/EEC, 2004/450/EC**

PART A

a) Aim of programme: To carry out a monitoring and control programme for Zoonotic Salmonella in laying flocks of *Gallus gallus* in accordance to Council Regulation 2160/2003 and Commission Regulation 1168/2006; to achieve a reduction of the prevalence of *Salmonella enteritidis* and *Salmonella typhimurium*.

The prevalence of *Salmonella enteritidis* and *Salmonella typhimurium* oscillates around 20%, since the overall prevalence of Salmonellosis in 2004 was of 43.87%. Therefore in accordance to article 1 by the end of 2009, at least a 30% reduction of positive flocks of adult laying hens would be achieved.

b) Relevant animal population and phases of production covered by the programme: Laying hens

rearing flocks :- day-old chicks

- pullets, two weeks before moving into laying phase or laying unit

laying flocks:- every 15 weeks during the laying period (usually runs for an average of 18 months)

c) The control programmes are currently being presented to the finance authorities for funding. Personnel for the collection of samples, is already available. Human resources for laboratory testing are included in the submitted plan and enforcement can be carried out to ensure compliance with part D of Council Regulation 2160/2003.

1. General

1.1 The information available regarding the occurrence of salmonellosis in layer flocks of *Gallus gallus* dates back to the baseline study carried out within the framework of EU Directive 2003/99 and Council Regulation 2160/2003.

The study was carried out between October 2004 and September 2005. All farms registered and functioning within that period were sampled in accordance to the legislative requirements.

The overall prevalence of Salmonellosis in the national layer flocks was of 43.85%.

Twenty-five (25) farms resulted positive out of a total of fifty-seven (57) farms. However the isolates were not typed and therefore there is no available information regarding the prevalence values of *Salmonella* serovars, primarily *Salmonella typhimurium* and *Salmonella enteritidis*.

1.2 Structure and organization of the competent authority

The competent authority for the implementation of the Salmonella National Control programme in layer hens of *Gallus gallus* is the Veterinary Regulation, Fisheries Conservation and Control Division (VRFCCD), which falls under the Ministry of Resources and Rural Affairs. The VRFCCD is the competent authority responsible for drawing up the national control programmes under Council Regulation 2160/2003, organizing, executing, collecting and reporting of all data.

The organogramme is at present being amended and still to be approved by the Ministry.

1.3 Laboratories:

The National Veterinary Laboratory of the VRFCCD will be responsible for the analysis of the samples collected under the framework of this programme.

The laboratory, to date, is not accredited however quality assurance systems will be in accordance to the requirements of current EN/ISO standards. The National Reference Laboratory does not yet organize ring trials, however through the NRL, the national veterinary laboratory will be participating in ring trails organized by reference laboratories for which the NRL also participates.

1.4 Examination of samples

Samples will be collected by VRFCCD staff and kept refrigerated until receipt at the laboratory, which will be within 24 hours from collection. The samples will be examined within 48 hours from receipt and kept refrigerated until such time.

Analysis of the boot swabs, faecal and dust samples will be carried out in accordance to Commission Regulation 1168/2006. The method of analysis used is that recommended by the Community Reference Laboratory for Salmonella, being the current version of draft Annex D of ISO 6579 (2002): "Detection of *Salmonella* spp. in animal faeces and in samples of primary production". Serotyping will be carried following the Kaufmann-White scheme.

1.5 Official controls

At feed -level

Currently there are no official controls in place targeted at the Salmonella Control Programme. The raw materials used are normally of EU certified origin (see point 2.2.)

The table below indicates a proposed sampling programme to be included in the official control of the national salmonella control programmes, once personnel are in place.

Compound feeds	Type	No. of samples
Large feed mills	Concentrates of broiler starter	1
	Layer	2
	Broiler grower/finisher	2
	Turkey grower/finisher	1
Smaller feed mills	Layer	1
	Broiler grower/finisher	1
Home mixers (approx. 20)	Layer	6
	Broiler grower/finisher	5

At flock-level

All registered and functioning egg-layer flocks on both Malta and Gozo will be included in the national control programme.

In consideration of the local epidemiological situation, the number of farms and limited capacity, the competent authority would be sampling all registered and operational farms twice a year.

This would substitute two of the sampling requested by the operator

Targeted age-group	Samples to be taken
Pullets 2 weeks prior to laying	Caged flocks: 2x150g of naturally pooled faeces from belts 2 dust samples: (100g in 250ml) or 1 dust + 1 sample of 150g naturally pooled faeces 2 birds tested for antibiotic residues
Laying hens 15 weeks into laying period	2x150g of naturally pooled faeces from belts 2 dust samples: (100g in 250ml) or 1 dust + 1 naturally pooled faeces (150g) 3 birds tested for antibiotic residues

Preferable the adult hens tested would be of a different batch and not those tested as pullets 2 weeks prior to laying. On farm, one usually finds an average of three- four different age-groups at one given time.

It is important to note that moreover, the competent authority will also be taking over the sampling delegated to the food business operator, as laid down in Commission Regulation 1168/2006, in consideration of the limited capacity of the farms and that there are no private laboratories approved for salmonella microbiological testing in Malta. (see part B, point 3)

The collection of samples, transport, detection and typing are as already indicated in points 1.3 and 1.4.

1.6 Measures taken with regards to animals and products in which *Salmonella* spp. is detected.

Council Regulation 2160/2003, Commission Regulation 1168/2006 and Commission Regulation 2137/2007 are directly applicable. Only those poultry flocks and their products found to be infected with *Salmonella enteritidis* and *Salmonella typhimurium*, will be considered unfit for human consumption and will be withheld and destroyed in accordance to articles 6 to 11 of CAP. 437, Veterinary Services Act.

Other *Salmonella* spp. isolated:

In cases where other *Salmonella* spp. are isolated, other than *Salmonella enteritidis* and *salmonella typhimurium*, action will be taken for those serovars of public health importance as recommended by the EFSA and the Commission. However even those serovars frequently isolated locally will be addressed. If there is a change in the trend of the locally most frequently isolated serovars during the three-year period of the programme, this will be taken into consideration. Measures taken will reflect specific requirements D of Annex II of regulation 2160/2003 EC.

In cases where other *Salmonella* spp. of public health importance are isolated:

- The official veterinarian i/c of poultry and/ or veterinary support officer/s from the poultry section of Animal Health will carry out an investigation on the farm.
- They would also be responsible for re-sampling. Other flocks of different age-groups would also be sampled. The sampling protocol will be in accordance to annex 1 Part D, art.4 b of Commission Regulation (EC) No 1237/2007. Samples for antimicrobial-residue analysis will also be taken.
- Microbiological analysis would be run in parallel with the Public Health Laboratory (National Reference Laboratory for Salmonella).

In case there is reconfirmation of one of the targeted serovars, different considerations can be taken depending on the capacity of the holding, the age-group infected and microbiological results of other houses on the farm (where present).

- Eradication will not be mandatory, however it may be considered in certain cases.
- Biosecurity measures will be strengthened to ensure that the infection does not spread between the different houses (if it is the case) and other holdings; such as, no movement of live animals from farm, external disinfection of vehicles transporting products out of farm and proper disinfection of equipment used.
- The farm will be under constant vigilance of the competent authority and sampling would be repeated every three weeks from all age-group and houses on the farm, in order to follow the evolution of the infection.
- After all infected flock has reached end of production and has been slaughtered; following an order of the CVO, operations on the farm will be temporarily prohibited. CVO. Thorough cleaning and disinfection procedures will be carried out. Repopulation will be permitted only once two consecutive environmental sampling batches taken at a distance of two weeks have resulted negative to *Salmonella* spp. isolation.
- After repopulation the adult hens will be sampled every eight (8) weeks instead of every fifteen weeks for twelve (12) months.

Confirmed case of *Salmonella enteritidis* or *Salmonella typhimurium*:

If a positive case of isolation of *Salmonella enteritidis* or *Salmonella typhimurium* is confirmed (see point Part B, point 3) then the flock and their products will be considered as unfit for human consumption and condemned.

- If there are different houses on the holding, one or more may be exempt, in those cases where there is adequate evidence of effective biosecurity measures on the farm and no *Salmonella enteritidis* or *Salmonella typhimurium* were isolated from these houses; also the antimicrobial-residue tests is negative.
- The infected flock would be slaughtered on farm and the carcasses disposed of as described in detail in points 4.4.4 and 4.4.6 .
- There would be recall of animal products found positive to the detection of *Salmonella enteritidis* and *Salmonella typhimurium* or originating from flocks found to be infected with these serovars.
- There are no measures to treat salmonella infected products or products originating from salmonella-infected flocks. Such products would have to be destroyed by incineration. Prior to leaving the premises, officials will mark the egg-products in order to distinguish them from those fit for human consumption.

There is one public incinerator which falls under the administration of the Waste Serv Ltd. which falls under the Ministry of Resources and Rural Affairs. Recalled products have to be transported in leak-proof containers provided for by the Waste-Serv Ltd and then the products will be destroyed through incineration.

No vaccination programme against *Salmonella enteritidis* with either live or dead vaccines are carried out on the national flock.

1.7 National legislation relevant to the implementation of the programme.

The Veterinary Service Act, Chapter 437, art 5.1, states that "the Minister may prescribe rules concerning the prevention and control of diseases". Council and Commission regulations are directly applicable.

1.8 Financial assistance provided to food and feed businesses in the context of the programme.

The Veterinary Service Act, Chapter 437, art 18.1 regards financial contribution in connection with national schemes for the eradication of particular diseases. "Collection of information on Zoonosis and Zoonotic Agent Rules" - I.N 28/2005 art 8.1. regulates financial contribution for zoonotic control programmes. The financial contribution would only be calculated and confirmed at the closure of the eradication procedures. However an estimate of the costings would be as follows:
 Birds will be calculated at 10 euro per bird.
 Incineration would cost 750 euro per ton.
 Transport of products or carcasses would cost approximately 60 euro per ton.
 Culling of flocks is estimated at 300 Euro per ton (1000 birds = 1ton).
 Feeds will be calculated at current market prices; about 350 euro per ton.

2. Concerning food and feed businesses covered by the programme.

2.1. There are no parent stock flocks on the Islands of Malta and Gozo.

There are two registered hatcheries on the Island of Malta.

Hatching Regulations LN48 of 1997, lays down the provisions that regulate the national hatchery establishments.

Hatching eggs are imported from EU member states, primarily from France, Italy, Netherlands and Belgium. All consignments are imported with the official Intra Trade Certificate issued according to Council Directive 539/90. In 2007, 251,280 egg-laying hatching eggs were imported. Day-old chicks and layer pullets are also imported from Italy. A total of 90,568 day-olds and 82,842 layer pullets were imported in 2007. Therefore between hatching eggs and live chicks/pullets, a total of 424,690 were imported.

The hatcheries are obliged to report to the VFRCCD, as competent authority, the number of hatching eggs imported, submitting a copy of import/trade documents. The competent authority then prints out a "hatch report" which is passed on to the hatchery. This form is returned to the competent authority once the particular batch of eggs have been hatched and sold. This hatch report includes a list of farms which are the destination of chicks sold.

The farmers can either sell the eggs produced directly to shops, supermarkets or egg-collectors, who in turn would deliver to shops / supermarkets. There is no central egg-packing plant. All farmers pack their own egg produce. The majority of farms pack the eggs manually, however the few larger holdings have automation of the grading, stamping and packing. In 2003 the Egg Marking Standard Regulations 345/2003 came into force. In accordance to this law, each individual egg-laying farm is given a unique identity number that has to be printed on all the eggs produced on that farm and sold to shops, supermarkets or egg-collectors. This legislation excludes eggs sold directly to the consumer. The control at retail level falls under the supervision of the Environmental Health Department which falls under the Directorate of Public health under the Ministry of Health, the Elderly and Community Care

Total number of Farms registered with the CA	Malta	Gozo
79	71	8

Not all farms registered are functioning, currently 64 farms are operating.

Capacity of holding	No. of Farms
100,000-50,000	1
49,999 - 25,000	2
24,999 - 15,000	8
14,999 - 10,000	6
9,999 - 5,000	12
4,999 - 2,000	20
1,999 - 500	21
Less than 499	9

The majority of the farms are family-run on a part-time basis. About half the farms operate an all-in all-out system since they have more than one house. Usually, the smaller holdings have different age-groups held in the same enclosure.

The majority of farms use a caged system on more than one tier, usually up to a maximum of 5 tiers. All cage houses have belts.

There is only one farm that keeps the egg-laying hens in barns on deep litter.

Hens usually go into the laying period around eighteen (18) weeks and have an average laying-period of eighteen (18) months. Some farms prolong the laying period through moulting.

2.2 Structure of the production of feed.

There are six feed mills. These feed mills import and produce the majority of feed supplied to local farms. An average of 200,000 tons of all types of animal feed is produced per year. The two larger feed mills import premixes from approved EU countries (predominantly UK). These are mixed with other ingredients such as cereals and soya imported from EU and Non-EU countries. The other four smaller feed mills import concentrates which are then mixed with other ingredients such as cereals.

A small number of farms carry out home mixing using concentrates to obtain a mash.

Legal notice 374/2000 regulates the responsibility of feed mills. An official letter will be sent to all feed mills and farms carrying out home mixing, whereby they will be held responsible for testing their final products. The feed mills will be requested to submit a plan for the following year by November; to the competent authority stating their sampling programme with supporting information. The competent authority will have twenty (20) working days to send in any remarks. The feed mill will be obliged by law to transmit their results quarterly to the competent authority; unless *Salmonella enteritidis* or *Salmonella typhimurium* are isolated. In such cases, the feed mill is to report within three working days to the competent authority. Recall of infected products or any other appropriate action would be taken following an investigation and retesting carried out by the competent authority. Those egg-laying farms carrying out home-mixing will be obliged to conduct microbiological analysis for *Salmonella* in the same way as the feed mills. They will also be required to submit a sampling plan to the competent authority with all supporting information. The same obligations for reporting *Salmonella typhimurium* or *Salmonella enteritidis* positive samples as detailed above, would apply. The competent authority would then carry out an investigation and testing of feed and flock. Following positive results the actions stated in point 4.4.4 would apply.

2.3 Relevant guidelines for good animal husbandry practices or other guidelines on biosecurity measures.

Detailed guidelines for good husbandry practices and biosecurity measures on poultry farms have not yet been compiled. However general guidelines are covered in the Code of Good Agriculture Practice (Cogap).

It covers certain practices such as:

- the guidelines for storage of feed
- the quality of building material
- need for a vehicle disinfection pits
- necessity of a manure clamp

All farms producing manure have to store solid manure in an enclosed place known as the manure clamp, for six months a year (from the 15th October to 15th March). All farms are to have a leak proof cesspit, to collect foul water arising from cleaning etc. The manure clamp is to be connected to the cesspit. The water is kept for 15 days then collected by a bowser. These regulations serve to reduce the environmental pollution and the nitrate level in fields fertilised with manure. However, they also provide a tool to permit biosecurity measures to limit spread of disease.

In 2005, an extensive exercise was carried out by the competent authority which addressed good animal husbandry practices and welfare issues (eg. cage –size).

Those farms not adhering to Community standards had to invest in restructuring their farm. General guidelines on good animal husbandry and biosecurity guidelines covering hygiene management, measures to be taken in cases of salmonella infection and hygiene during transport will be drawn up.

Hygiene management on farm:

The farmer has to obtain an authorization form from the competent authority (attach.2) to be able to buy the day-old chicks from the hatchery. Almost all farms have automatic cleaning belts while few carry out the cleaning manually. Cleaning is usually carried out weekly. The faecal material falls into the pits where it is usually shoveled out into dumpers and taken to the manure clamp by van. A small number make use of conveyer belts. During the week there is cleaning out of the shed, removal of cobwebs etc. Those farms that have an all-in-all out- system, leave the shed without birds for a short period, during which time the shed is well-cleaned out, disinfected and the cages are washed out and repaired if necessary. Pest control (mice, rats and birds) is generally addressed through the use of nets on the windows, blocking any holes in the building structures and the use of venom. Some farms insert blocks of venom in plastic tubes which are placed around the perimeter of the holding, while others spread the venom. Some farms also use pans with foam soaked in disinfectant outside the sheds for disinfecting boots, however not all farmers are in the habit of changing their clothing prior to entering the sheds.

Measures for preventing infections:

Most holdings have pits for the disinfection of the vehicles entering or leaving the premises. However none have separate entrances. The feed is bought fresh from the feed mills, even though there are those that also have their own silos. Due to the island's high humidity levels, farmers are not in the habit of storing large quantities of feed to avoid the formation of yeasts and moulds. Feeds are usually kept in their bags within the sheds in a dark, dry corners.

The water-supply can be direct from the main government supply or from private bore holes. In the latter case, control of the water is purely voluntary; however from the information we have this is not frequently carried out unless the family uses the water from the bore hole for their own personal use.

A high percentage of farms are small in capacity and are family-run, therefore few people would be responsible for the daily management of the animals. There is no legal obligation for people handling live animals to carry out medical checks. The larger holdings engage employees.

The hatchery transports the day-old chicks to the farms, while live pullets are transported by the company. Eggs are packed on farm, manually or automatically. The majority of operators distribute the eggs to shops, supermarkets etc.; however there are a few who sell to third parties (egg-collectors), who in turn distribute the produce.

2.4 Routine veterinary supervision on farm.

This is purely voluntary. One of the largest local feed mills provides free technical support. A lot of the farmers buying their feed from this feed mill make regular use of the technical personnel. If there is any cause for suspicion, the company's veterinarian is then called out.

Currently, there is no official routine veterinary supervision at farm level.

2.5 Registration of farms.

Local regulations request commercial egg producers to have an approval mark and compensation schemes enforce the registration of egg-laying farms with the competent authority. There is the Egg Marking Regulation 345/2003 which requires that all eggs sold at retail level, excluding those sold directly to the consumers on farm, have to be marked by a unique identity number. This unique number is issued by the competent authority, which is the VRFCCD. The control at retail level falls under the supervision of the Environmental Health Department which falls under the Directorate of Public Health under the Ministry of Social Policy.

Farms not registered with the competent authority can not be given this unique identity number.

There is also the Special Marketing Policy Programme Maltese Agriculture (SMPPMA) which entitles only registered business operators to a refund of 16 euro cents per dozen eggs sold.

2.6 Record keeping at Farm.

All farms keep an official register. This is tied up to the fact that the competent authority requests that each registered farm submits two monthly reports. One sheet holds all details of the production on farm. This report details the daily production of eggs, number of birds, number of deaths, quantity of feed used. The second report is a sales report where the farmer is declaring the quantity of eggs sold with proof of VAT receipts. These monthly reports are tied up with the subsidiary scheme of 16 euro cents per dozen eggs sold under the SMPPMA scheme.

2.7 Documents to accompany animals when dispatched.

The hatcheries are obliged to report to the VRFCCD, as the competent authority, the number of hatching eggs imported (submitting a copy of import documents). A hatch report for each batch of eggs is given to the hatchery that duly fills in the information and returns the hatch report to the competent authority after hatching. The report includes the list of farms which are the destination of the chicks. On this report the competent authority issues a movement document (Attach.1) with all relevant details which is given to the farmer. On culling of the egg-laying hens at the end of their productive life, the farmer fills in the details and submits the movement document back to the competent authority.

The competent authority can then cross-check statistics coming from import documents and the "hatch report". Spent hens delivered dead to the thermal facility are recorded in line with procedures laid down for all animal by-products. A document is issued by the Waste Serv (thermal unit), a copy of which is passed on to the competent authority together with the movement document.

It must be stated that non-compliance with procedures as detailed would jeopardize qualification for subsidy under the SMPPMA scheme.

PART B

1. Identification of programme

Member State	Malta
Disease	Infection of animals with Zoonotic <i>Salmonella spp</i>
Animal population covered by the programme	Egg-laying flocks of <i>Gallus gallus</i>
Years of Implementation	2009
Reference of this document	MI SAL-LAY09
Contact Name	Dr Anthony Gruppetta DG Civil Abattoir Albertown, Marsa Malta Tel: +356.25905168 Fax: +367.25905182 e-mail; evo.mrae@gov.mt 2 nd contact person: Dr. Susan Chircop Tel: +356.25095304 e-mail: susan.chircop@gov.mt
Date sent to the Commission	28 th April 2008

2. Historical data on the epidemiological evolution of Zoonotic salmonella

No epidemiological evolution data is available. However following the baseline study conducted in 2004, 25 farms out of 57 were positive to salmonellosis following microbiological investigation. That would come to an overall prevalence of 43.85% of egg-layer flocks infected with *Salmonellosis spp*. Taking into consideration the full holding capacity of the farms that resulted positive, approximately 60% of national flock would be infected. The prevalence of *Salmonella enteritidis* and *Salmonella typhimurium* oscillates around 20%, since the overall prevalence of Salmonellosis in 2004 was of 43.87%. Therefore in accordance to article 1 by the end of 2009, at least a 30% reduction of positive flocks of adult laying hens would be achieved.

3. Description of the submitted programme.

The main objectives of this programme is to monitor and control all egg-laying flocks of *Gallus gallus* in Malta and Gozo, in accordance to Commission Regulation 2160/2003 for Zoonotic *Salmonella* spp. Flocks found infected with *Salmonella typhimurium* and *Salmonella enteritidis* will be eradicated and their products destroyed to achieve a reduction in the prevalence of these serotypes in the national flock, as indicated in Commission Regulation 1168/2006. The prevalence of *Salmonella enteritidis* and *Salmonella typhimurium* oscillates around 20%, therefore in accordance to article 1 by the end of 2009, at least a 30% reduction of positive flocks of adult laying hens would be achieved.

The target population would be all registered egg-laying flocks of *Gallus gallus*. Malta and Gozo will be considered as one region.

All registered and functioning farms will be tested. Sixty-four (64) farms which are functioning, will be tested, having a total population of approximately 586,241.

The testing scheme would follow the programme elaborated in point 1.5:

The sampling scheme below includes both the official and operators programme, since as stated before, the competent authority will also be taking over the sampling delegated to the food business operator, as laid down in Commission Regulation 1168/2006

<u>Targeted age-group</u>	<u>Samples to be taken</u>
Day-old chicks	Box-liners: 10 (pooled into 2 samples) dead chicks: (10 pooled into one sample)
Pullets 2 weeks prior to laying	Caged flocks: 2x150g of naturally pooled faeces from belts Barn houses: 2 pairs of boot swabs (only one house) 1 dust sample: (100g in 250ml) 2 birds /farm tested for antibiotic residues
Laying hens every 15 weeks	2x150g of naturally pooled faeces from belts 1 dust sample: (100g in 250ml) 3 birds /farm tested for antibiotic residues annually.

The competent authority would be responsible for the sampling and testing, which would be carried out as stated in points 1.3 and 1.4.

The competent authority is also responsible for the national residue plan.

However apart from this programme, each farm will be tested for antimicrobial-residue during the sampling for the salmonella control programme. Two pullets will be sampled from the same house and tier where a faecal sample is collected. During the sampling of the adult egg-laying hens on three occasions, one layer each time will be sampled from the cages where the sampling is carried out.

The six-plate test will be carried out at the National Veterinary Laboratory of the competent authority.

If the results are positive to antimicrobial residue analysis, the flock will be considered suspect of infection with *Salmonella enteritidis*/*Salmonella typhimurium*, and an official investigation will be conducted as detailed in point 4.4.4.

Definition of a positive case:

- i. Confirmed case of *Salmonella enteritidis* or *Salmonella typhimurium* infection. In the case of primary positive isolation of *Salmonella enteritidis* / *Salmonella typhimurium*, the flock will be considered suspect of infection. A farm investigation will be initiated as described in point 4.4.4. Samples for microbiology and antimicrobial-residue analysis are once again taken from all houses on the holding and the sampling protocol will be in accordance to annex I Part D, art.4 b of Commission Regulation (EC) No 1237/2007. Microbiological analysis will be run in parallel with the Public Health Laboratory (National Reference Laboratory for Salmonella). In case of confirmation, the flock is considered as a positive case.

On the findings of the official investigation, if there is evidence that biosecurity measures on the farm are adequate and effective between houses and no *Salmonella enteritidis* / *Salmonella typhimurium* was isolated from one or more houses on the farm holding, these may be exempt from measures as listed in point 4.4.4 in case of a positive case. This situation may arise only in the largest of holdings.

- ii. In the case of a positive antimicrobial residue analysis result but a negative isolation result, an appropriate suspension time will be conferred following the findings of the official investigation. After such time has lapsed, antibiotic-residue testing and microbiological re-testing of the flock will be conducted in accordance to annex I Part D, art.4 b of Commission Regulation (EC) No 1237/2007. The microbiology analysis will be run in parallel with the Public Health Laboratory.

ii.a) If the analysis results in positive isolation of *Salmonella enteritidis* or *Salmonella typhimurium*, the flock will be considered as a positive case and the measures described in point 4.4.4 will be carried out.

ii.b) If, on re-analysis, once again, there is a positive antimicrobial-residue result and negative *Salmonella* spp. isolation, the flock is considered as positive to

Salmonella enteritidis and *Salmonella typhimurium* infection and will be considered as unfit for human consumption.

ii.c) If there is no positive isolation of *Salmonella enteritidis* or *Salmonella typhimurium* and the antimicrobial-residue analysis is negative; the CVO would lift all restrictions on the farm/flock..

Vaccination as a preventive measure and treatment of products coming from infected flocks will not be considered.

4. Measures of the submitted programme

4.1 Summary of measures under the programme

Duration of the programme:

First year 2009

last year: 2011

- Control/eradication
- Testing
- Killing of animals tested positive
- Extended slaughter or killing
- Disposal of products

- Monitoring

4.2 The central authority in charge of supervising and coordinating is the Veterinary Regulation Fisheries conservation and Control Division (VRF/FCD).

The National Veterinary Laboratory;

(i) Senior veterinary officer will be responsible for:

- appropriate training of personnel responsible for collecting the samples
- in charge of supervising that the programme is adhered to and that the samples are collected according to the programme.
- all necessary material needed for sampling eg. Boot swabs, sterile bags, etc are available.
- ensure that samples are analysed in accordance to time frame and methodology as laid down in the programme
- reporting suspect positives / confirmed to the animal health section and CVO
- co-ordinate with the Public Health Laboratory parallel analysis of suspect samples
- inform Director of Department for Safety of the Food Chain of any infected flocks.

- collecting/ filing all relevant data and reporting results.

Animal Health Department:

(ii) Senior veterinary support officer in charge of the poultry section will be responsible for:

- co-ordinating sampling team
- making appointments with the farmers and preparing daily sampling schedules
- collaborating with the senior veterinary officer i/c lab
- organizing on farm investigation in cases of suspect/confirmed positive results
- collaborate in census, movement restriction, eradication and disinfection measures
- collaborate in farm investigations in view of repopulation of farm

(iii) Assistant Veterinary Support Officers will be responsible for:

- Ensuring to follow appropriate training
- collecting and transporting samples appropriately
- deliver samples within 24hours from collection to the laboratory
- ensure that accompanying documents are filled appropriately

(iv) Veterinary officer i/c poultry

- carry out on-farm investigations in collaboration with senior veterinary support officer i/c poultry section
- co-ordinate and conduct census, movement restriction, disinfection and eradication measures
- submit on farm investigation report to the SVO i/c lab within 48hours
- co-ordinate farm investigation in view of repopulation
- responsible for recommending repopulation following positive finding after on-farm investigation

(v) Veterinary Officer responsible for by –products:

- is responsible of ensuring that biosecurity measures and provisions in Council Regulation 1174/2002 are adhered to during disposal of carcasses and products.

Animal Welfare Department

(vi) Animal welfare officer:

- responsible for ensuring that animal welfare provisions are respected during killing on farm.

Department for Safety of the Food Chain

(vii) Director is responsible for;

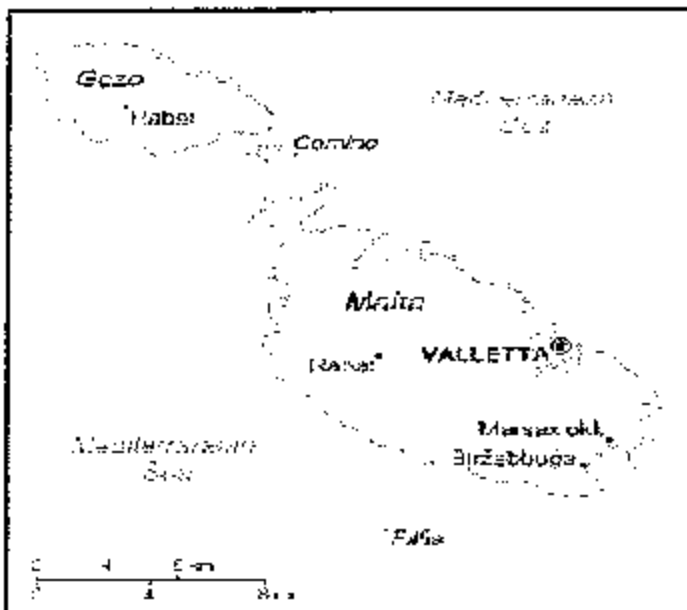
- informing the national contact person for the rapid alert system regarding confirmed infected flocks for *Salmonella enteritidis* and *Salmonella typhimurium*

Chief veterinary Officer

Following recommendations from senior veterinary officer i/c lab and veterinary officer i/c of poultry section;

- Responsible of issuing restriction movement documents
- issuing of documentation for lifting restriction measures on a farm and /or permitting repopulation.

4.3 The Islands of Malta and Gozo are covered by this programme and are considered as one region. The Veterinary regulation Fisheries Conservation and Control Division administers the whole region.



4.4 Measures implemented under the programme

4.4.1 Measures and applicable legislation as regards registration of holdings:

Local regulations request commercial egg producers to have an approval mark and compensation schemes enforce the registration of egg-laying farms with the competent authority. Refer to part A, point 2.5.

4.4.3 Measures and applicable legislation as regards the notification of disease:

The Veterinary Services Act, Chapter 437, art 35.1(D) provides for the obligation of notification of any suspicion of zoonosis or other disease or any other phenomenon or circumstances liable to present a serious threat to animal or public health.

4.4.4. Measures and applicable legislation as regards the measures in case of a positive case:

Council Regulation 2160/2003, Commission Regulation 1168/2006 and Commission Regulation (EC) 1237/2007 are directly applicable.

(i) Primary isolation of *Salmonella enteritidis* or *Salmonella typhimurium*.

When a *Salmonella enteritidis* or *Salmonella typhimurium* is isolated from primary faecal or environmental samples in commercial poultry flocks the senior veterinary officer (SVO) in charge of the lab would:

- report suspect positives to the animal health section and CVO.
- An official restriction on the farm is issued by the CVO to prevent movement of animals to and from the farm.
- The SVO of the laboratory would co-ordinate with the Public Health Laboratory (National Reference Laboratory for Salmonella) to carry out parallel microbiological analysis of suspect samples.
The official veterinarian /assistants would be responsible for re-sampling. Where present, other flocks of different age-groups / houses would be sampled. The sampling protocol will be in accordance to annex 1 Part D, art.4 b of Commission Regulation (EC) No 1237/2007. Seven samples will be taken, (five faecal samples and two dust samples). A sub-sample of 25 grams will be collected of each faecal material and dust sample for analysis and all will be analysed separately. Samples for antibiotic-residue analysis will also be taken but analysed.
- The official veterinarian i/c poultry together with veterinary support officer/s from the poultry section of animal health will carry out an investigation on the farm and conduct a census.
- No eggs, poultry carcasses, animal feed, material or waste may leave the holding without a written authorisation issued by an official veterinarian.
- Persons not directly involved in taking care of the animals are not permitted to enter buildings where infected flocks are kept.
- Appropriate means of disinfection, using a disinfectant officially approved as effective against *Salmonella* spp., is to be used at the entrances and exits of the building housing poultry and of the holding itself.

- Vehicles and equipment used for transport of animals or products have to be cleaned and disinfected with an officially approved disinfectant effective against *Salmonella* spp. immediately after the movement.

These measures will remain in force until results of re-analysis are completed.

(ii) Negative diagnosis of positive initial results:

On primary isolation of *Salmonella enteritidis* or *Salmonella typhimurium*, as stated above, re-sampling will be carried out in accordance to Commission Regulation (EC) 1237/2007.

If *Salmonella* infection with *Salmonella enteritidis* or *Salmonella typhimurium* is not confirmed on re-analysis and the result for antimicrobial-residue analysis is negative, the CVO would consider the initial result as a false positive and withdraw the restrictions placed on the farm. The flock would then be considered as fit for human consumption.

(iii) Action taken on confirmed positive results of *Salmonella enteritidis* and *Salmonella typhimurium*.

Restriction measures already in place (as described in point 4.4.4.(i)) are maintained. Different houses within the holding may be exempt, in those cases that there is adequate evidence of effective biosecurity measures on the farm and no *Salmonella enteritidis* or *Salmonella typhimurium* were isolated from these houses. This situation may arise only in the largest of holdings.

- The owner of the infected holding or the owner's representative will be served with an official notice in writing ordering the slaughter and destruction of the flock; where one or more houses are exempt, this would be clearly indicated. Valuation of the animals on the holding will normally be carried out before they are killed. The birds will, by preference, be killed by dislocation of the neck. Other methods of killing may include the use of gases such as carbon dioxide or other gases in closed trailers or containers. Carbon dioxide gas in the form of 22kg tanks is available locally. Mobile enclosed trailers or containers can be transported on site if required. Killing of the birds will be supervised by officials from the competent authority and the Official veterinarian responsible for animal welfare has to ensure that welfare provisions are respected. All personnel involved in culling are required to wear protective clothing, gloves and nose/mouth masks.

- the carcasses will be disposed of through incineration at the thermal unit run by the Waste Serv Ltd. There is only one public incinerator which falls under the administration of the Waste Serv. Ltd, which falls under the ministry of Resources and rural Affairs. The carcasses have to be transported in leak-proof containers supplied by Waste Serv and transported drip-proof in vehicles that must be disinfected externally before leaving the holding. Officials from the competent authority have to supervise all procedures.
- There would be recall of animal products originating from flocks found to be infected with *Salmonella enteritidis* and *Salmonella typhimurium*.
- There are no facilities to treat salmonella – infected products or products originating from salmonella-infected flocks. Such products would have to be destroyed by incineration. Transport of these products will have to be carried out following the same measures as in the case of the infected slaughtered flock.
- Feeds will also be considered contaminated and will be destroyed.

Cleaning and disinfection should be started as soon as the animals have been killed and removed from the holding and must be carried out in a methodical way. Officials from the competent authority should supervise the operations. Detailed procedures would be laid down in the good animal husbandry guideline to be drafted. However, there is a first stage where an officially approved disinfectant would be sprayed and left to act for 24 hours. This will be followed by general cleaning to remove organic matter and dust. Attention should be given to areas and equipment difficult to reach. Fans, drains, slats etc should not be neglected. After thorough cleaning (steam cleaning is recommended) fumigation is carried out. Disinfectants should have time to dry before samples are taken. As a general rule, detergents such as hypochlorites, alkalis, gluteraldehydes and Virkon can be used for the disinfection of poultry houses, wooden structures, concrete surfaces, equipment and vehicles. The aerosol application of gluteraldehyde is suitable for the disinfection of fans and similar equipment.

- Environmental samples are taken and repopulation will be permitted and all restriction bans lifted when two consecutive sample batches, taken 14 days apart, result negative to isolation of salmonella spp.
- Monitoring on these farms will be increased to monthly sampling schemes during the laying period for the next twelve (12) months of the new flock after repopulation.

4.4.5 Qualification of animals

There is no national legislation on qualification of flock. This will be considered after the first year or two that the programme has been running.

4.4.6 Control procedures and in particular rules on the movement of animals liable to be affected or contaminated by a given disease

Movement of animals is restricted on *Salmonella enteritidis* or *Salmonella typhimurium* positive cases, as detailed in point 4.4.4. Monitoring on these farms will be increased to monthly sampling schemes during the laying period of the subsequent flock once re-populated for the next twelve (12) months.

In other cases of infection of other *Salmonella* spp, restrictions as detailed in Part A, point 1.6 would be carried out.

4.4.7. Measures and applicable legislation as regards the control of the disease.

Council Regulation 2160/2003, Commission Regulation 1168/2006 and Commission Regulation (EC) 1237/2007 are followed in setting up the sampling scheme, testing regime and setting of targets.

There is no intention of carrying out vaccination programmes.

No vaccination is currently carried out and will not be considered. Commission Regulation (EC) No 1177/2006 on the requirements for use of antimicrobials and vaccines in control programmes for poultry will be adhered to. Malta does not intend to carry out any vaccination programme and antimicrobials will not be used as preventive measures in any *Salmonella* control programme.

4.4.8 Measures and applicable legislation as regards the compensation for owners of slaughtered and killed animals:

"Collection of information on Zoonosis and Zoonotic Agent Rules" – LN 28/2005, art. 8.1 which falls under the Veterinary Service Act,; and art.8.1. of this same Act, set down provisions for financial compensation.

4.4.9 Information and assessment on biosecurity measures management and infrastructure in place in the flocks involved.

Please refer to Part A, point 2.3

5. General description of costs and benefits.

The costs to the farmer will be felt initially in cases of eradication. The farmer will obviously encounter losses following eradication and costs in upgrading holdings. However, in the long run the farmer will benefit from a reduction in costs of medicinals and farm management. They will see an increase in production and financial return also from the overall positive impact consumer confidence in local produce. The costs on society will be due to an increase in waste that will have to be eliminated. However, there would be the benefits of food safety.

6. Data on the epidemiological evolution during the last five years

6.1 Evolution of zoonotic salmonellosis

6.1.1. Data on evolution of zoonotic salmonellosis

Year: 2005

Situation on date: 31st October 2005

Region	Poultry – laying hens			Disease/Infection ^(a) : Zoonotic salmonellosis									
	Type of flock(s)	Total number of flocks ^(b)	Total number of animals	Total number of animals under the programme	Number of flocks checked ^(c)	Number of Positive ^(d) Flocks ^(e)	Number of flocks depopulated ^(f)	Total number of animals slaughtered or destroyed ^(g)	Quantity of eggs destroyed (number or kg)	Quantity of egg products (number or kg)			
Milica / Gogo	Laying hens	57	407,662	407,662	57	(a1)	(a2)	(a3)	(a4)	(a5)	(a6)	(a7)	(a8)
Total	Laying hens	57	407,662	407,662	57	25							

6.2. Stratified data on surveillance and laboratory tests

6.2.1. Stratified data on surveillance and laboratory tests (one table per year and per disease/species)

Year: 2005 Animal species^(a): Poultry, Category^(b): Laying hen flocks
Description of the used serological tests: - nil

Description of the used microbiological or virological tests:

ISO 6579 (2002): "Detection of Salmonella spp. in animal faeces and in samples of primary production".

Description of the other used tests: nil

Region ^(c)	Serological tests:		Microbiological or virological tests		Other tests	
	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)
Moldova	7	7	171	39	7	7
Tom	7	7	171	39	7	7

- (a) Animal species if necessary.
- (b) Category/further specifications such as breeders, laying hens, broilers, breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc., when appropriate.
- (c) Region as defined in the approved control and eradication programme of the Member State.
- (d) Number of samples tested.
- (e) Number of positive samples.

6.3. Data on infection (one table per year and per species)

Year:

2005

Animal species^(a); Poultry – laying hen flocks

Region ^(b)	Number of herds infected ^(c)	Number of animals infected
Matla-Ciego	25	292,872
Total	25	292,872

(a) Animal species if necessary.

(b) Region as defined in the control and eradication programme of the Member State.

(c) Herds or flocks or holdings as appropriate.

6.4. Data on vaccination programmes¹ - NO VACCINATION PROGRAMME WILL BE CONDUCTED

Year: _____

Animal species: (a) _____

Description of the used vaccination

Region ²	Total number of herds ³	Total number of animals	Information on vaccination programme			
			Number of herds ³ in vaccination programme	Number of herds ³ vaccinated	Number of animals vaccinated	Number of doses of vaccine administered
Total						

(a) Animal species if necessary.

(b) Region as defined in the approved control and eradication programme of the Member State.

(c) Herds or flocks or holdings as appropriate.

¹ Data to provide only if vaccination has been carried out.

Targets

7.1. Targets related to testing - Layers - 2009

7.1.1. Targets on diagnostic tests

Region ¹⁾	Type of the test	Animal species: <i>Colinus gallus</i> Target population ²⁾	Type of sample ³⁾	Objective ⁴⁾	Number of planned tests ⁵⁾
Mali / Gao	Microbiological	Laying hens, day-old chicks	Box-litter	Control	444
		Laying hens, pullets (16-18 wks)	Droppings	Control	332
		Adults, every 15 weeks during laying	Faecal mass	Control	251 (189 official)*
			Faecal	Control	178 (114 official)*
			Soil	control	251 (189 official)*
	serotyping	Laying flocks	Isolate	control	60
	Antimicrobial resistance testing	Laying hens, pullets (16-18 wks) Adults, every 15 weeks during laying	Muscle muscle		178 192
Total					1938

(a) Species if necessary.

(b) Region as defined in the approved control and eradication programme of the Member State.

(c) Description of the test.

(d) Specification of the targeted species and the categories of targeted animals if necessary.

(e) Description of the sample (for instance faeces).

(f) Description of the objective (for instance surveillance, monitoring, control of vaccination).

* retesting of approximately 25% of flocks acc. to 1257/2007 has been accounted for.

7.1.2. Targets on testing of flocks²

Year: 2009

Situation on date: N/A

Region	Animal species: <i>Callus gallus</i>		infection ^(a) : Zoonotic Salmonellosis -								
	Type of flock/1	Total number of flocks ^(b)	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Expected number of flocks to be checked ^(c)	Number of flocks ^(d) expected to be positive ^(e)	Number of flocks expected to be depopulated ^(f)	Total number of animals expected to be slaughtered or destroyed ^(g)	Expected quantity of eggs to be destroyed (number or kg) ^(h)	Expected quantity of eggs channelled to egg producers (number or kg) ⁽ⁱ⁾
Malla / Guazo	Laying hens	64	425,000	64	425,000	64	(a1) (Approx. 20%) (a2) (Approx. 5%)	(a3) 7	(a4) 148,000	(a5) 120,000	(a6) 120,000
Total		64	425,000	64	425,000	64	17	13	148,000	120,000	120,000

- (a) For zoonotic salmonellosis indicate the serotypes covered by the control programmes: (a1) for *Salmonella* Enteritidis, (a2) for *Salmonella* Typhimurium, (a3) for other serotypes-specify as appropriate, (a4) for *Salmonella* Enteritidis or *Salmonella* Typhimurium.
- (b) For example, breeding flocks (rearing, adult flocks), production flocks, laying hen flocks, breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc. flocks or herds or as appropriate.
- (c) Total number of flocks existing in the region including eligible flocks and non-eligible flocks for the programme.
- (d) Check means to perform a flock level test under the programme for the presence of salmonella. In this column a flock must not be counted twice even if it has been checked more than once.
- (e) If a flock has been checked, in accordance with footnote (d), more than once, a positive sample must be taken into account only once.

² Specify types of flocks if appropriate (breeders, layers, broilers).

8. Detailed analysis of the cost of the programme - 2009

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: Number of bacteriological tests (cultivation) planned to be carried out in the framework of official sampling	606 (official) 932 (unofficial)* TOTAL- 1538	35	21,210 (official) 32,620(unofficial)* TOTAL- 53,830	Yes
	Test: Number of serotyping of relevant isolates tests planned to be carried out	40 (official) 20(unofficial)*	56	2,240 (official) 1120 (unofficial)* TOTAL- 3,360	Yes
Antibiotic residues analysis	Six-plate test	320 (official)	6	1,920 (official)	yes
1.2. Cost of sampling	Containers/boots/s/wabs/fuel	560 visits	6	3,480	yes
1.3. Other costs					
2. Vaccination or treatment of animal products					
2.1. Purchase of vaccine/treatment of animal products	NO VACCINATION PROGRAMME CARRIED OUT				
	Number of purchase of vaccine doses planned if a vaccination policy is part of the programme as set out explicitly under point 4 of Annex II				
2.2. Distribution costs					
2.3. Administering costs					
2.4. Control costs					

3. Slaughter and destruction					
3.1 Compensation of animals	168,000	10	1,680,000	yes	
3.2 Transport costs	From farm to incineration unit	60/ton	10,080	Yes	
	168 (1,000 birds=1 ton)				
3.3 Destruction costs	Incineration	1,050/ton	176,400	yes	
	168				
3.4 Loss in case of slaughtering	Not all birds on farm at the same production level, therefore the loss of production and ban from breeding for a period is calculated on 75%	3.55 / bird	447,300	yes	
	126,000				
3.5 Costs from treatment of animal products (milk, eggs, hatching eggs, etc)	No treatment of products				
4. Cleaning and disinfection					
	On farm	2,300	29,900	yes	
	13				
5. Salaries (staff contracted for the programme only)					
	2 technicians dedicated to analysis**	12,567/yr			
	1 VSO	11,112/yr			
	1 AVSO	11,112/yr	34,791	yes	
	1 support staff dedicated to sampling**				
6. Consumables and specific equipment					
	Included in analysis and sampling costs				
7. Other costs					
	/				
			TOTAL		2,441,061

* unofficial samples will also be carried out by the competent authority

** To carry out salmonella programme in broilers and layers, 4 technical staff contracted to be exclusively dedicated for the analysis while 2 veterinary support staff on field contacted to be exclusively dedicated to sampling on farm. Therefore the salaries have been split up equally between the control programme for layers and broilers.



Layer Chicks

Batch code: Batch ID in Full

Supplier: Hatchery Name

Batch size: [Batch Size] chicks

Arrival date: [Date of Delivery]

Producer: [Producer Name & Address]

License No. - [Premises Code]

- Total Mortality: _____
- Date of Slaughter: _____
- No. of spent hens sold / discarded: _____
- Proof of slaughter / dumping: _____
- Processing Plant No. / Dumping Site: _____

*Nota: Importanti hafna li din il-karta tigi rritornata fl-ufficju l-Biccerija fl-ahhar tal-
produzzjoni, wara li jinqatlu jew jintremew it-tigieg, flimkien ma' kopja tal-prova tal-qatla
fil-biccerija jew il-karta tal-mizbla.*

Dr. Anthony Gruppetta

Director General VRFCC

Producer



*Taqsimta ta' Regolament Veterinarju,
Konservazzjoni u Kontroll tas-Sajd*

*Veterinary Regulation, Fisheries
Conservation & Control Division*

Authority to Purchase Chicks

Reference: [AuthNo]

Date of issue: [Date of Issue]

[Producer Name] is granted authority to purchase [Number] [Sex] chicks on [Date from] and up to **15 days** after, and must be kept at:

Premises code: [Premises Code]

[PremAddr]

&[PremAddr]

&[PremAddr]

The birds may not be moved from the above premises, except for immediate slaughter, without written permission from the Director General of the Veterinary Affairs Division.

This authority may be revoked at any time, and is subject to the number of [Sex] chickens kept at the premises never exceeding the authorised capacity of _____ birds.

Signature of issuing officer:

Signature of producer:

.....
/ Dr. Anthony Gruppetta

Director General VRFCC

MALTA
NATIONAL MULTI-ANNUAL
SALMONELLA CONTROL
PROGRAMME
2009-2011
IN LAYER FLOCKS
Gallus gallus
under Commission Regulation
No 1168/2006

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1. Introduction

The main objectives of this programme is to monitor and control all layer flocks of *Gallus gallus* in Malta and Gozo, in accordance to Council Regulation 2160/2003 and Commission Regulation 1168/2006 for Zoonotic *Salmonella* spp. ; to achieve a reduction of the prevalence of *Salmonella enteritidis* and *Salmonella typhimurium*. Flocks found infected with *Salmonella typhimurium* and *Salmonella enteritidis* will be condemned and slaughtered, in order to achieve a reduction in the prevalence of these serotypes in the national flock. The aim is to achieve an annual minimum percentage of reduction of positive flocks of adult laying hens equal to at least 30%, in accordance to Commission Regulation 1168/2006.

The control programme will run for three consecutive years.

2. Situation of salmonella infection in the local layer flocks.

The information available regarding the occurrence of salmonellosis in layer flocks of *Gallus gallus* dates back to the baseline study carried out within the framework of EU Directive 2003/99 and Council Regulation 2160/2003.

The study was carried out between October 2004 and September 2005. All farms registered and functioning within that period were sampled in accordance to the legislative requirements.

The overall prevalence of Salmonellosis in the national layer flocks was of 43.85%.

Twenty-five (25) farms resulted positive out of a total of fifty-seven (57) farms.

The prevalence of *Salmonella enteritidis* and *Salmonella typhimurium* oscillates around 20%, since the overall prevalence of Salmonellosis in 2004 was of 43.87%. Therefore in accordance to article 1 by the end of 2009, at least a 30% reduction of positive flocks of adult laying hens would be achieved.

3. National legislation applicable to the implementation of the control programme.

3.1 Registration of farms.

Local regulations request commercial egg producers to have an approval mark and compensation schemes enforce the registration of egg-laying farms with the competent authority. There is the Egg Marking Regulation 345/2003 which requires that all eggs sold at retail level, excluding those sold directly to the consumers on farm, have to be marked by a unique identity number. This unique number is issued by the competent authority, which is the VRECCD. The control at retail level falls under the supervision of the Environmental Health Department which falls under the Directorate of Public Health under the Ministry of Social Policy.

Farms not registered with the competent authority can not be given this unique identity number.

There is also the Special Marketing Policy Programme Maltese Agriculture (SMPPMA) which entitles only registered business operators to a refund of 16 euro cents per dozen eggs sold.

3.2 Implementation

The Veterinary Service Act, Chapter 437, art 5.1, states that "the Minister may prescribe rules concerning the prevention and control of diseases".

Collection of information on Zoonosis and Zoonotic Agent Rules - LN 28/2005.

Council and Commission regulations are directly applicable.

3.3 Notification

The Veterinary Services Act, Chapter 437, art 35.1(f) provides for the obligation of notification of any suspicion of zoonosis or other disease or any other phenomenon or circumstances liable to present a serious threat to animal or public health.

3.4 Financial Compensation

The Veterinary Service Act, Chapter 437, art 18.1 regards financial contribution in connection with national schemes for the eradication of particular diseases.

Collection of information on Zoonosis and Zoonotic Agent Rules - LN 28/2005 art 8.1. regulates financial contribution for zoonotic control programmes.

4. Competent Authority

- The competent authority for the implementation of the Salmonella National Control programme in layer flocks of Gallus gallus is the Veterinary Regulation, Fisheries Conservation and Control Division (VRFCCD), which falls under the Ministry of Resources and Rural Affairs. The VRFCCD is the competent authority responsible for drawing up the national control programmes under Council Regulation 2160/2003, organizing, executing, collecting and reporting of all data. The VRFCCD administers both islands of Malta and Gozo.
- Animal feed businesses and the poultry industry (both farms and slaughterhouses) also fall under the responsibility of the VRFCCD.
- The National Veterinary Laboratory of the VRFCCD will be responsible for the analysis of the samples collected under the framework of this programme. The laboratory, to date, is not accredited however quality assurance systems will be in accordance to the requirements of current EN/ISO standards. The National Reference Laboratory does not yet organize ring trials, however through the NRL, the national veterinary laboratory will be participating in ring trails organized by reference laboratories for which the NRL also participates.

4.1 The duties of the different sections of VRFCID involved in the national control programme are described in detail below:

The National Veterinary Laboratory:

(i) Senior veterinary officer will be responsible for:

- appropriate training of personnel responsible for collecting the samples
- in charge of supervising that the programme is adhered to and that the samples are collected according to the programme.
- all necessary material needed for sampling eg. boot swabs, sterile bags, etc are available.
- ensure that samples are analysed in accordance to time frame and methodology as laid down in the programme
- reporting suspect positives / confirmed to the animal health section and CVO
- co-ordinate with the Public Health Laboratory parallel analysis of suspect samples
- inform the Director for the Department of Safety of the Food Chain of any infected flocks.
- collecting/ filing all relevant data and reporting results.

Animal Health Department:

(ii) Senior veterinary support officer in charge of the poultry section will be responsible for:

- co-ordinating sampling team
- making appointments with the farmers and preparing daily sampling schedules
- collaborating with the senior veterinary officer i/c lab
- organizing on farm investigation in cases of suspect/confirmed positive results
- collaborate in census, movement restriction, eradication and disinfection measures
- collaborate in farm investigations in view of repopulation of farm

(iii) Assistant Veterinary Support Officers will be responsible for:

- Ensuring to follow appropriate training
- collecting and transporting samples appropriately
- deliver samples within 24hours from collection to the laboratory
- ensure that accompanying documents are filled appropriately

(iv) Veterinary officer i/c poultry

- carry out on-farm investigations in collaboration with senior veterinary support officer i/c poultry section
- co-ordinate and conduct census, movement restriction, disinfection and eradication measures
- submit on farm investigation report to the SVO i/c lab within 48hours
- co-ordinate farm investigation in view of repopulation
- responsible for recommending repopulation following positive finding after on-farm investigation

(v) Veterinary Officer responsible for by products:

- is responsible of ensuring that biosecurity measures and provisions in Council Regulation 1174/2002 are adhered to during disposal of carcasses and products.

Animal Welfare Department

(vi) Animal welfare officer:

- responsible for ensuring that animal welfare provisions are respected during killing on farm.

Department for Safety of the Food Chain

(vii) Director is responsible for;

- informing the national contact person for the rapid alert system regarding confirmed infected flocks for *Salmonella enteritidis* and *Salmonella typhimurium*

Chief veterinary Officer

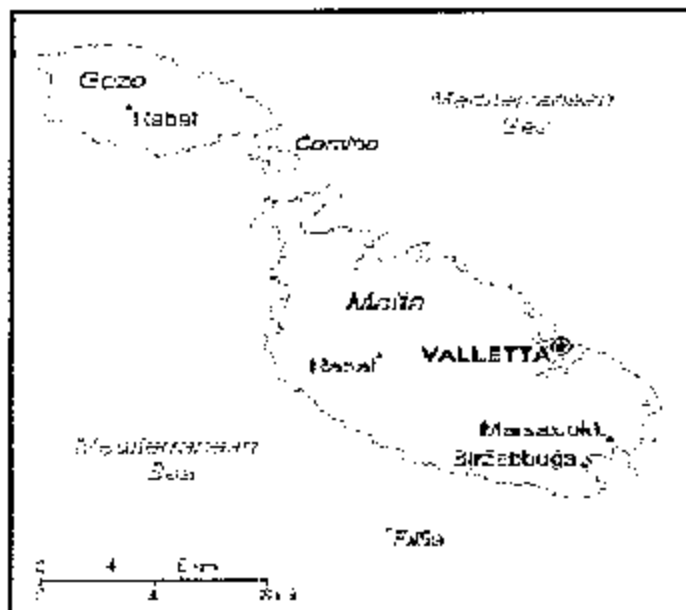
Following recommendations from senior veterinary officer i/c lab and veterinary officer i/c of poultry section;

- Responsible of issuing restriction movement documents
- issuing of documentation for lifting restriction measures on a farm and /or permitting repopulation.

5. Geographic situation.

Poultry farms are to be found on the mainland of Malta and the smaller sister island of Gozo. Malta and Gozo are considered as one region.

All registered and functioning layer farms will be included in the national control programme.



6. Structure of Poultry Industry

6.1 Local situation.

There are no parent stock flocks on the Islands of Malta and Gozo.

There are two registered hatcheries on the Island of Malta.

Hatching Regulations LN48 of 1997, lays down the provisions that regulate the national hatchery establishments.

Hatching eggs are imported from EU member states, primarily from France, Italy, Netherlands and Belgium. All consignments are imported with the official Intra Trade Certificate issued according to Council Directive 539/90. In 2007, 251,280 egg-laying hatching eggs were imported. Day-old chicks and layer pullets are also imported from Italy. A total of 90,568 day-olds and 82,842 layer pullets were imported in 2007. Therefore between hatching eggs and live chicks/pullets, a total of 424,690 were imported.

The hatcheries are obliged to report to the VFRCCD, as competent authority, the number of hatching eggs imported, submitting a copy of import/trade documents. The competent authority then prints out a "hatch report" which is passed on to the hatchery. This form is returned to the competent authority once the particular batch of eggs have been hatched and sold. This hatch report includes a list of farms which are the destination of chicks sold.

The farmers can either sell the eggs produced directly to shops, supermarkets or egg-collectors, who in turn would deliver to shops / supermarkets. There is no central egg-packing plant. All farmers pack their own egg produce. The majority of farms pack eggs manually, however the few larger holdings have automation of the grading, stamping and packing. In 2003 the Egg Marking Standard Regulations 345/2003 came into force. In accordance to this law each individual egg-laying farm is given a unique identity number that has to be printed on all the eggs produced on that farm and sold to shops, supermarkets or egg-collectors. This legislation excludes eggs sold directly to the consumer. The control at retail level falls under the supervision of the Environmental Health Department which falls under the Directorate of Public health under the Ministry of Health, the Elderly and Community Care

Total number of Farms registered with the CA	Malta	Gozo
79	71	8

Not all farms registered are functioning, currently 64 farms are operating.

Capacity of holding	No. of Farms
100,000-50,000	1
49,999 - 25,000	2
24,999 - 15,000	8
14,999 - 10,000	6
9,999 - 5,000	12
4,999 - 2,000	20
1,999 - 500	21
Less than 499	9

The majority of the farms are family-run on a part-time basis. About half the farms operate an all-in all-out system since they have more than one house. Usually, the smaller holdings have different age-groups held in the same enclosure.

The majority of farms use a caged system on more than one tier, usually up to a maximum of 5 tiers. All cage houses have belts.

There is only one farm that keeps the egg-laying hens in barns on deep litter.

Hens usually go into the laying period around eighteen (18) weeks and have an average laying-period of eighteen (18) months. Some farms prolong the laying period through moulting.

6.2 Record keeping at Farm.

All farms keep an official register. This is tied up to the fact that the competent authority requests that each registered farm submits two monthly reports. One sheet holds all details of the production on farm. This report details the daily production of eggs, number of birds, number of deaths, quantity of feed used. The second report is a sales report where the farmer is declaring the quantity of eggs sold with proof of VAT receipts. These monthly reports are tied up with the subsidiary scheme of 16 euro cents per dozen eggs sold under the SMPPMA scheme.

6.3 Documents to accompany animals when dispatched.

The hatcheries are obliged to report to the VRECCD, as the competent authority, the number of hatching eggs imported (submitting a copy of import documents). A hatch report for each batch of eggs is given to the hatchery that duly fills in the information and returns the hatch report to the competent authority after hatching. The report includes the list of farms which are the destination of the chicks. On this report the competent authority issues a movement document (Attach.1) with all relevant details which is given to the farmer. On culling of the egg-laying hens at the end of their productive life, the farmer fills in the details and submits the movement document back to the competent authority.

The competent authority can then cross-check statistics coming from import documents and the "hatch report". Spent hens delivered dead to the thermal facility are recorded in line with procedures laid down for all animal by-products. A document is issued by the Waste Serv (thermal unit), a copy of which is passed on to the competent authority together with the movement document.

It must be stated that non-compliance with procedures as detailed would jeopardize qualification for subsidy under the SMPPMA scheme.

7. Structure of the production of feed.

There are six feed mills. These feed mills import and produce the majority of feed supplied to local farms. An average of 200,000 tons of all types of animal feed is produced per year. The two larger feed mills import premixes from approved EU countries (predominantly UK). These are mixed with other ingredients such as cereals and soya imported from EU and Non-EU countries. The other four smaller feed mills import concentrates which are then mixed with other ingredients such as cereals. A small number of farms carry out home mixing using concentrates to obtain a mash. Legal notice 374/2000 regulates the responsibility of feed mills. An official letter will be sent to all feed mills and farms carrying out home mixing, whereby they will be held responsible for testing their final products. The feed mills will be requested to submit a plan for the following year by November, to the competent authority stating their sampling programme with supporting information. The competent authority will have twenty (20) working days to send in any remarks. The feedmill will be obliged by law to transmit their results quarterly to the competent authority; unless *Salmonella enteritidis* or *Salmonella typhimurium* are isolated. In such cases, the feedmill is to report within three working days to the competent authority. Recall of infected products or any other appropriate action would be taken following an investigation and retesting carried out by the competent authority. Those egg-laying farms carrying out home mixing will be obliged to conduct microbiological analysis for *Salmonella* in the same way as the feed mills. They will also be required to submit a sampling plan to the competent authority with all supporting information. The same obligations for reporting applicable to the feed mills will also apply in cases of *Salmonella typhimurium* or *Salmonella enteritidis* positive samples. The competent authority would then carry out an investigation and testing of feed and flock.

Official controls

(i) At flock –level:-

In consideration of the local epidemiological situation, the small number of farms and the limited capacity; the competent authority would be sampling all registered and operational farms twice a year.

This would substitute two of the sampling requested by the operator

Targeted age-group	Samples to be taken
Pullets 2 weeks prior to laying	Caged flocks: 2x150g of naturally pooled faeces from belts 2 dust samples: (100g in 250ml) or 1 dust + 1 sample of 150g naturally pooled faeces 2 birds tested for antibiotic residues
Laying hens 15 weeks into laying period	2x150g of naturally pooled faeces from belts 2 dust samples: (100g in 250ml) or 1 dust + 1 naturally pooled faeces (150g) 3 birds tested for antibiotic residues

Preferable the adult hens tested would be of a different batch and not those tested as pullets 2 weeks prior to laying. On farm, one usually finds an average of three- four different age-groups at one given time.

It is important to note the, moreover, the competent authority will also be taking over the sampling delegated to the food business operator, as laid down in Commission Regulation 1168/2006, in consideration of the limited capacity of the farms and that there no private laboratories approved for salmonella microbiological testing in Malta. (refer to point 8)

(ii) Official controls at feed-level:

Currently there are no official controls in place targeted at the Salmonella Monitoring, the table below indicates a proposed sampling programme to be included in the official control of the national salmonella control programmes, once personnel are in place.

Compound feeds	Type	No. of samples
Large feed mills	Concentrates of broiler starter	1
	Layer	2
	Broiler grower/finisher	2
	Turkey grower/finisher	1
Smaller feed mills	Layer	1
	Broiler grower/finisher	1
Homemixers (approx. 20)	Layer	6
	Broiler grower/finisher	5

8. Sampling Protocol

8.1 At flock-level

The competent authority will be responsible for sampling. The competent authority will be taking over the sampling delegated to the food business operator, as laid down in Commission Regulation 1168/2006, in consideration of the limited capacity of the farms and that there no private laboratories approved for salmonella microbiological testing in Malta.

All flocks reared will therefore be sampled by the competent authority.

Def; of flock as per 2160/2003, means all poultry of the same health status kept on the same premises or in the same enclosure and constituting a single epidemiological unit; in the case of housed poultry, this includes all birds sharing the same airspace.

Targeted age-group	Samples to be taken
Day-old chicks	Box-liners: 10 (pooled into 2 samples) dead chicks: (10 pooled into one sample)
Pullets 2 weeks prior to laying	Caged flocks: 2x150g of naturally pooled faeces from belts Barn houses: 2 pairs of boot swabs (only one farm) 1 dust sample: (100g in 250ml) 2 birds tested for antibiotic residues
Laying hens every 15 weeks	2x150g of naturally pooled faeces from belts 1 dust sample: (100g in 250ml) 3 birds tested for antibiotic residues (once annually)

The samples will be taken in accordance to CR 1168/2006. The samples of naturally pooled faeces shall be collected from all belts and scrappers after running the manure removal system. If these are not present fresh faeces will be collected from no less than 60 different places underneath the cages from the dropping pits. Dust samples are collected from prolific sources of dust. When using boot swabs or socks, the overboots are not changed between boot swabs. The samples are clearly marked and then transported in cooler boxes. The samples will have to be brought into the laboratory within 24 hours after collection.

8.2 At feed -level

Currently there are no official controls in place targeted at the Salmonella Monitoring. The raw materials used are normally of EU certified origin (refer to point 7.) The table below indicates a proposed sampling programme to be included in the official control of the national salmonella control programmes, once personnel are in place.

Compound feeds	Type	No. of samples
Large feed mills	Concentrates of broiler starter	1
	Layer	2
	Broiler grower/finisher	2
	Turkey grower/finisher	1
Smaller feed mills	Layer	1
	Broiler grower/finisher	1
Homemixers (approx. 20)	Layer	6
	Broiler grower/finisher	5

9. Detection Method

The samples will be tested within 72 hours from sampling. Until such time the samples will be kept refrigerated.

Boot swabs taken from one same house will be pooled together.

Analysis of the boot swabs, faecal and dust samples will be carried out in accordance to Commission Regulation 1168/2006. The method of analysis used is that recommended by the Community Reference Laboratory for Salmonella, being the current version of draft Annex D of ISO 6579 (2002): "Detection of Salmonella spp. in animal faeces and in samples of primary production". Modified semi-solid Rappaport-Vassiliadis medium (MSRV) will be used as a single selective medium. Serotyping will be carried following the Kaufmann-White scheme.

10. Antimicrobial – residue sampling

The competent authority is also responsible for the national residue plan.

However apart from this programme each farm will be tested for antimicrobial-residue during the sampling for the salmonella control programme. Two pullets will be sampled from the same house and tier, where a faecal sample has been taken. During the sampling of the adult laying-hens on three occasions, one layer each time will be sampled from the cages where the sampling is carried out.

The six-plate test will be carried out at the National Veterinary Laboratory of the competent authority.

11. Estimated number of analysis over the three- year programme

Year	Type of analysis	No. of samples estimated
2009	Microbiology	1538
	Serotyping	60
	Antibiotic-residue	320
2010	Microbiology	1435
	Serotyping	55
	Antibiotic-residue	320
2011	Microbiology	1377
	Serotyping	50
	Antibiotic-residue	320

12. General Restrictions on Salmonella-infected flocks

Council Regulation 2160/2003 and Commission Regulation 1168/2006 are directly applicable. Commission Regulation (EC) No 1237/2007, as regards the placing on the market of eggs from Salmonella infected flocks of laying hens is also directly enforceable. Only those poultry flocks and their products found to be infected with *Salmonella enteritidis* and *Salmonella typhimurium*, will be considered unfit for human consumption and will be withheld and destroyed in accordance to articles 6 to 11 of CAP, 437, Veterinary Services Act.

12.1 Definition of Suspect : Primary isolation of Salmonella enteritidis or Salmonella typhimurium.

When a *Salmonella enteritidis* or *Salmonella typhimurium* is isolated from primary faecal or environmental samples; the senior veterinary officer in charge of the lab would:

- report suspect positives to the animal health section and CVO
co-ordinate with the Public Health Laboratory (National Reference Laboratory for Salmonella), to carry out parallel analysis of suspect microbiological samples. Samples are once again taken from all houses on the holding and the sampling protocol will be in accordance to annex 1 Part D , art.4 b of Commission Regulation (EC) No 1237/2007 . Seven samples will be taken, (five faecal samples and two dust samples). A sub-sample of 25 grams will be collected of each faecal material and dust sample for analysis and all will be analysed separately. Samples for antimicrobial-residue analysis will also be taken.

Action taken:

- The official veterinarian i/c poultry together with veterinary support officer/s from the poultry section of animal health will carry out an investigation on the farm and conduct a census.
- The official veterinarian /assistants would also be responsible for re-sampling. Other flocks of different age-groups would be sampled as well. The sampling protocol will be in accordance to annex 1 Part D , art. 4 b of Commission Regulation (EC) No 1237/2007. Samples for antimicrobial-residue analysis will also be taken.
- Microbiological analysis would be run in parallel with the Public Health Laboratory (National Reference Laboratory for Salmonella).

- An official restriction on the farm is issued by the CVO to prevent movement of animals to and from the farm.
- No eggs, poultry carcasses, animal feed, material or waste may leave the holding without a written authorisation issued by an official veterinarian.
- Persons not directly involved in taking care of the animals are not permitted to enter buildings where infected flocks are kept.
- Appropriate means of disinfection, using a disinfectant officially approved as effective against *Salmonella* spp., is to be used at the entrances and exits of the building housing poultry and of the holding itself.
- Vehicles and equipment used for transport of animals or products have to be cleaned and disinfected with an officially approved disinfectant effective against *Salmonella* spp. immediately after the movement.

These measures will remain in force until results of re-analysis are completed.

12.2 Definition of a positive case:

- (i) Confirmation of isolation of *Salmonella enteritidis* or *Salmonella typhimurium* from samples taken for re-analysis from suspect farms; or a positive result for antimicrobial-residue analysis is obtained following re-sampling of suspect cases. The measures described in point 12.4 will be taken.
- (ii) If a positive antimicrobial-residue analysis result but a negative isolation result was obtained during primary testing. An appropriate suspension time will be conferred following the findings of the official investigation. After such time has lapsed, antimicrobial-residue testing and microbiological retesting of the flock will be conducted (the latter run in parallel with the Public Health Laboratory). If the analysis results in positive isolation of *Salmonella enteritidis* or *Salmonella typhimurium*, or once again positive to antimicrobial-residue therefore the flock will be considered as a positive case and the measures described in point 12.4 will be carried out.

12.3 Negative diagnosis of suspect cases.

On primary isolation of *Salmonella enteritidis* or *Salmonella typhimurium*, as stated in point 12.1, re-sampling in accordance to Commission Regulation (EC) 1237/2007 will be carried out.

If *Salmonella* infection with *Salmonella enteritidis* or *Salmonella typhimurium* is not confirmed on re-analysis and the result for antimicrobial-residue analysis is negative, the CVO would consider the initial result as a false positive and withdraw the restrictions placed on the farm. The flock would then be considered as fit for human consumption.

12.4 Action taken on positive cases

Different houses within the holding may be exempt, in those case that there is adequate evidence of effective biosecurity measures on the farm and no *Salmonella enteritidis* or *Salmonella typhimurium* were isolated from these houses. This situation may arise only in the largest of holdings.

- The owner of the infected holding or the owner's representative will be served with an official notice in writing ordering the slaughter and destruction of the flock; where one or more houses are exempt, this would be clearly indicated. Valuation of the animals on the holding will normally be carried out before they are killed. The birds will, by preference, be killed by dislocation of the neck. Other methods of killing may include the use of gases such as carbon dioxide or other gases in closed trailers or containers. Carbon dioxide gas in the form of 22kg tanks is available locally. Mobile enclosed trailers or containers can be transported on site if required. Killing of the birds will be supervised by officials from the competent authority and the Official veterinarian responsible for animal welfare has to ensure that welfare provisions are respected. All personnel involved in culling are required to wear protective clothing, gloves and nose/mouth masks.
- the carcasses will be disposed of through incineration at the thermal unit run by the Waste Serv Ltd. There is only one public incinerator which falls under the administration of the Waste Serv. Ltd. which falls under the ministry of Resources and rural Affairs. The carcasses have to be transported in leak-proof containers supplied by Waste Serv and transported drip-proof in vehicles that must be disinfected externally before leaving the holding. Officials from the competent authority have to supervise all procedures.
- There would be recall of animal products originating from flocks found to be infected with *Salmonella enteritidis* and *Salmonella typhimurium*.
- There are no facilities to treat salmonella -infected products or products originating from salmonella-infected flocks. Such products would have to be destroyed by incineration. Transport of these products will have to be carried out following the same measures as in the case of the infected slaughtered flock.
- Feeds will also be considered contaminated and will be destroyed.
- Cleaning and disinfection should be started as soon as the animals have been killed and removed from the holding and must be carried out in a methodical way. Officials from the competent authority should supervise the operations. Detailed procedures would be laid down in the good animal husbandry guideline to be drafted. However, there is a first stage where an officially approved disinfectant

would be sprayed and left to act for 24 hours. This will be followed by general cleaning to remove organic matter and dust. Attention should be given to areas and equipment difficult to reach. Fans, drains, slats etc should not be neglected. After thorough cleaning (steam cleaning is recommended) fumigation is carried out. Disinfectants should have time to dry before samples are taken. As a general rule, detergents such as hypochlorites, alkalis, gluteraldehydes and Virkon can be used for the disinfection of poultry houses, wooden structures, concrete surfaces, equipment and vehicles. The aerosol application of gluteraldehyde is suitable for the disinfection of fans and similar equipment.

13. General criteria for lifting of restrictions

Environmental samples are taken and repopulation will be permitted and all restriction bans lifted when two consecutive sample batches, taken 14 days apart result negative to isolation of salmonella spp.

Monitoring on these farms will be increased to monthly sampling schemes during the laying period for the next twelve (12) months of the new flock after repopulation.

14. Qualification of animals

There is no national legislation on qualification of flock. This will be considered after the first year or two that the programme has been running.

15. Financial Compensation

The Veterinary Service Act, Chapter 437, art 18.1 regards financial contribution in connection with national schemes for the eradication of particular diseases. "Collection of information on Zoonosis and Zoonotic Agent Rules" - LN 28/2005 art 8.1. regulates financial contribution for zoonotic control programmes.

16. Vaccination and other preventive measures

No vaccination is currently carried out and will not be considered. Commission regulation (EC) No 1177/2006 on the requirements for use of antimicrobials and vaccines in control programmes for poultry will be adhered to. Malta does not intend to carry out any vaccination programme and antimicrobials will not be used as preventive measures in any Salmonella control programme. Treatment of products coming from infected flocks will not be treated in any way but destroyed.

Carcasses and products from condemned infected flocks will be destroyed through incineration. There is only one thermal unit on the Island of Malta run by the Waste Serv Ltd. The carcasses will be transported in leak-proof containers supplied by waste Serv and transported in drip-proof vehicles that must be disinfected externally prior to leaving the holding. Officials from the competent authority have to supervise all procedures.

17. Measures taken when there is the isolation of other Salmonella spp.

In cases where other *Salmonella* spp. are isolated action will be taken for those serovars of public health importance as recommended by the EFSA and the Commission. However even those serovars frequently isolated locally will be addressed. If there is a change in the trend of the locally most frequently isolated serovars during the three-year period of the programme; this will be taken into consideration. Measures taken will reflect specific requirements D of Annex II of regulation 2160/2003 EC

In cases where other *Salmonella* spp. of public health importance are isolated :

- The official veterinarian i/c of poultry and/ or veterinary support officer/s from the poultry section of Animal Health will carry out an investigation on the farm.
- They would also be responsible for re-sampling. Other flocks of different age-groups would also be sampled. The sampling protocol will be in accordance to annex I Part D , art.4 b of Commission Regulation (EC) No 1237/2007; and also samples for antimicrobial-residue analysis would be taken.
- Microbiological analysis would be run in parallel with the Public Health Laboratory (National Reference Laboratory for Salmonella).

In case there is reconfirmation of one of the targeted serovars, different considerations can be taken depending on the capacity of the holding , the age-group infected and microbiological results of other houses on the farm (where present).

- Eradication will not be mandatory, however it may be considered in certain cases.
- Biosecurity measures will be strengthened to ensure that the infection does not spread between the different houses (if it is the case) and other holdings; such as, no movement of live animals from farm, external disinfection of vehicles transporting products out of farm and proper disinfection of equipment used.
- The farm will be under constant vigilance of the competent authority and sampling would be repeated every three weeks from all age-group and houses on the farm, in order to follow the evolution of the infection.
- After all infected flock has reached end of production and has been slaughtered; operations on the farm will be temporarily prohibited, following an order of the CVO. Thorough cleaning and disinfection procedures will be carried out. Repopulation will be permitted only once two consecutive environmental sampling batches taken at a distance of two weeks have resulted negative to *Salmonella* spp. isolation.
- After repopulation the adult hens will be sampled every eight (8) weeks instead of every fifteen weeks for twelve (12) months.

18. Biosecurity measures currently in place

Detailed guidelines for good husbandry practices and biosecurity measures on poultry farms have not yet been compiled. However general guidelines are covered in the Code of Good Agriculture Practice (Cogap).

It covers certain practices such as:

- the guidelines for storage of feed
- the quality of building material
- need for a vehicle disinfection pits
- necessity of a manure clamp

All farms producing manure have to store solid manure in an enclosed place known as the manure clamp, for six months a year (from the 15th October to 15th March). All farms are to have a leak proof cesspit, to collect foul water arising from cleaning etc. The manure clamp is to be connected to the cesspit. The water is kept for 15 days then collected by a bowser. These regulations serve to reduce the environmental pollution and the nitrate level in fields fertilised with manure. However, they also provide a tool to permit biosecurity measures to limit spread of disease.

In 2005, an extensive exercise was carried out by the competent authority which addressed good animal husbandry practices and welfare issues (eg. cage –size).

Those farms not adhering to Community standards had to invest in restructuring their farm. General guidelines on good animal husbandry and biosecurity guidelines covering hygiene management, measures to be taken in cases of salmonella infection and hygiene

Hygiene management on farm:

The farmer has to obtain an authorization form from the competent authority (attach.2) to be able to buy the day-old chicks from the hatchery. Almost all farms have automatic cleaning belts while few carry out the cleaning manually. Cleaning is usually carried out weekly. The faecal material falls into the pits where it is usually shoveled out into dumpers and taken to the manure clamp by van. Some holdings make use of conveyer belts. During the week there is cleaning out of the shed, removal of cobwebs etc. Those farms that have an all-in-all-out- system leave the shed without birds for a short period, during which time, the shed is well-cleaned out, disinfected and the cages are washed out and repaired if necessary. Pest control (mice, rats and birds) is generally addressed through the use of nets on the windows, blocking any holes in the building structures and the use of venom. Some farms insert blocks of venom in plastic tubes which are placed around the perimeter of the holding, while others spread the venom. Some farms also use pans with foam soaked in disinfectant outside the sheds for disinfecting boots, however not all farmers are in the habit of changing their clothing prior to entering the sheds.

Measures for preventing infections:

Most holdings have pits for the disinfection of the vehicles entering or leaving the premises. However none have separate entrances. The feed is bought fresh from the feed mills, even though there are those that also have their own silos. Due to the island's high humidity levels, farmers are not in the habit of storing large quantities of feed to avoid the formation of yeasts and moulds. Feeds are usually kept in their bags within the sheds in a dark,dry corners.

The water-supply can be direct from the main government supply or from private bore holes. In the latter case, control of the water is purely voluntary; however from the

information we have this is not frequently carried out unless the family uses the water from the bore hole for their own personal use.

A high percentage of farms are small in capacity and are family-run, therefore few people would be responsible for the daily management of the animals. There is no legal obligation for people handling live animals to carry out medical checks. The larger holdings have employees.

The hatchery transports the day-old chicks to the farms, while live pullets are transported by the company. Eggs are packed on farm, manually or automatically. The majority of operators distribute the eggs to shops, supermarkets etc.; however there are a few who sell to third parties (egg-collectors), who in turn distribute the produce.

Routine veterinary inspection on farms:

This is purely voluntary. One of the largest local feed mills provides free technical support. A lot of the farmers buying their feed from this feed mill make regular use of the technical personnel. If there is any cause for suspicion, the company's veterinarian is then called out.

Record-keeping at farm:

Refer to point 6.2.

Documents to accompany animals when dispatched:

- (i) Document accompanying birds from hatchery to holding:
The farmer has to obtain an authorization form from the competent authority (attach.2) to be able to buy the day-old chicks from the hatchery.
- (ii) Other documentation requested: refer to point 6.3

19. Reporting

The CA would be responsible for the reporting of results to the EU.

**GENERAL REQUIREMENTS FOR THE NATIONAL SALMONELLA
CONTROL PROGRAMME IN BROILER FLOCKS OF GALLUS GALLUS
IN ACC. TO COMMISSION DECISION: 90/424/EEC, 2004/450/EC**

PART A

a) Aim of programme: To carry out a monitoring and control programme for Zoonotic Salmonella in broiler flocks of Gallus gallus in accordance to Council Regulation 2160/2003 and Commission Regulation 646/2007 in order to achieve a reduction of the prevalence of *Salmonella enteritidis* and *Salmonella typhimurium*. Those flocks found infected with *Salmonella typhimurium* and *Salmonella enteritidis* will be condemned and culled, in order to achieve a reduction in the prevalence of these serotypes in the national flock, as indicated in Commission Regulation 646/2007 article 1:-

“reduction of maximum percentage of flocks of broilers remaining positive of *Salmonella enteritidis* and *Salmonella typhimurium* to 1% or less by the 31st December 2011

The control programme will run for three consecutive years.

b) Relevant animal population and phases of production covered by the programme:

broilers – birds two weeks prior to slaughter

c) The control programmes have been submitted to our finance authorities for funding. Personnel for the collection of samples is already available. Human resources for laboratory testing are included in the submitted plan and enforcement can be carried out to ensure compliance with part D of Council Regulation 2160/2003.

1.General

1.1 The information available comes from a base line study carried out in 2004. A cross-sectional survey of poultry carcasses was carried out from January to August 2004, to determine the prevalence of Zoonotic Salmonella. The samples were taken at the slaughterhouses according to their respective throughput. The sampling scheme was designed to detect a prevalence of 50% with a confidence level of 95%.

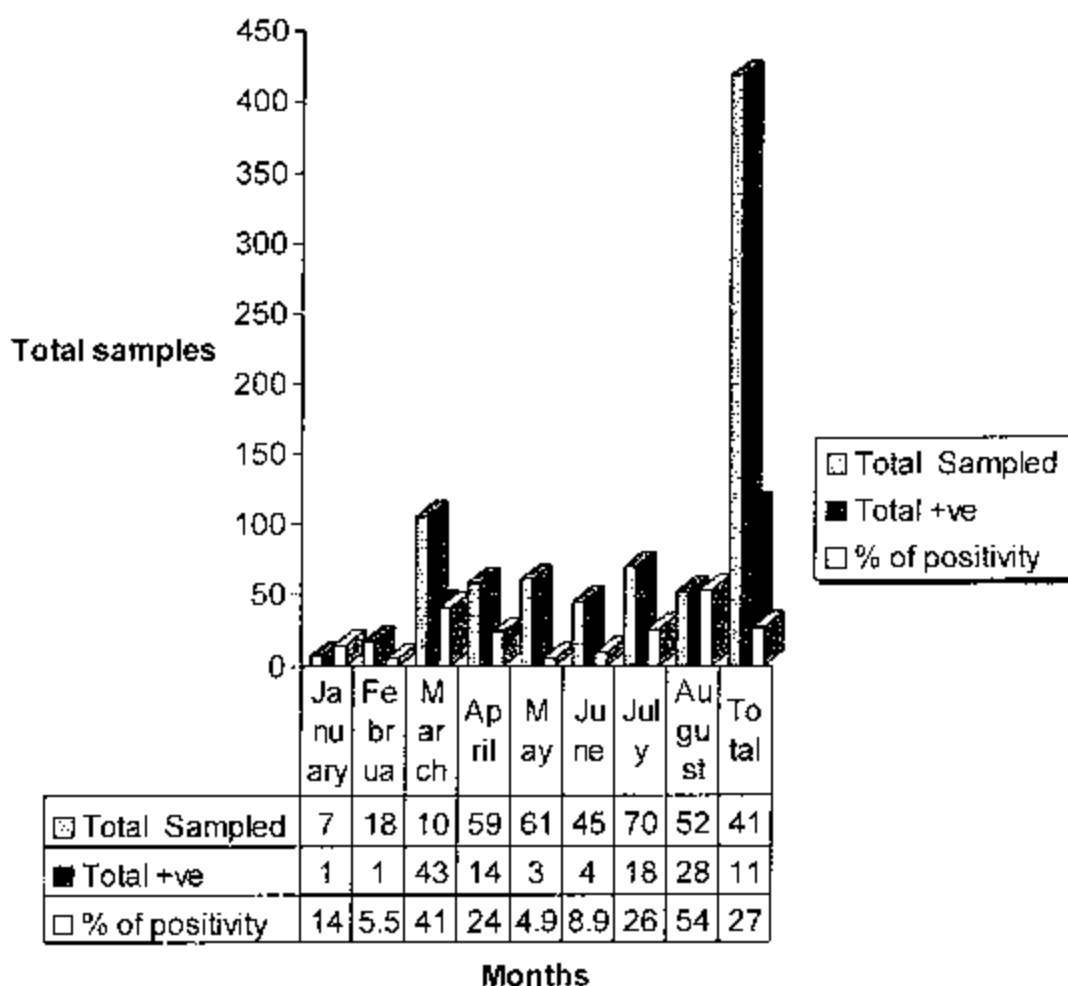
A total of 418 samples were collected and analysed at the National Veterinary Laboratory within the Veterinary Regulation, Fisheries Conservation and Control Division.

The isolates were sent abroad to be typed at VLA –Weybridge –UK.

The prevalence of salmonella spp. in the local poultry meat was of 26.8% (out of 418 samples, 112 resulted positive).

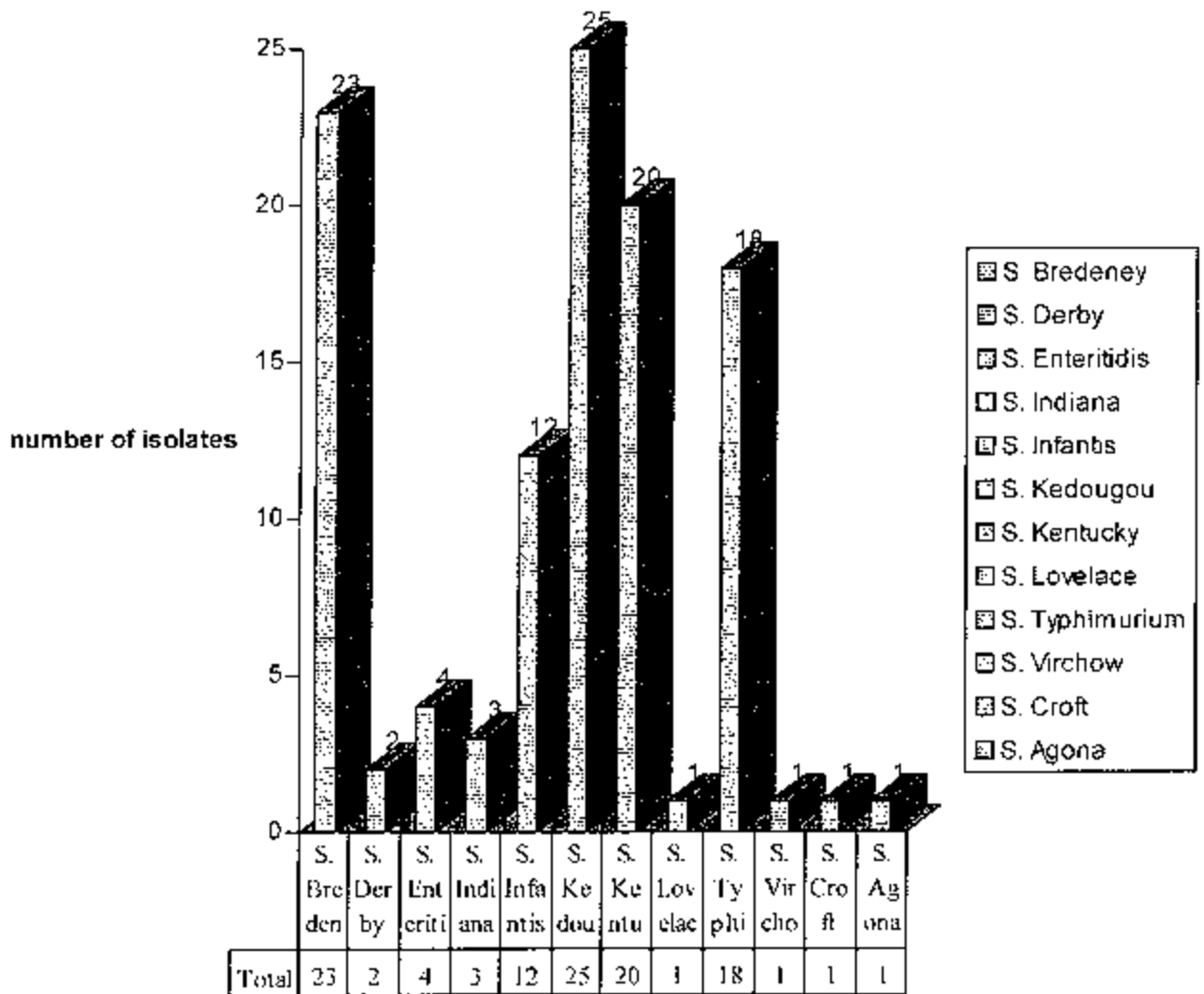
With regards to the distribution of positivity per month, it appears that August, March and July are the months where the peak positivity was registered, with 53.8%, 40.6% and 25.7% respectively.

Percentage of positivity per month



With regards to the serovars isolated, this study has shown that with 25 isolates, Kedougou is the serovar with the highest incidence, followed by Bredeney with 23, Kentucky with 20, Typhimurium with 18 and Infantis with 12. These serovars represent 87% of the total positivity (see table above).

salmonella serovars



Scrovar	% Of Positivity
S. Agona	0.9
S. Bredeney	20.5
S. Croft	0.9
S. Derby	1.8
S. Enteritidis	3.6
S. Indiana	2.7
S. Infantis	10.7
S. Kedougou	22.3
S. Kentucky	17.9
S. Lovelace	0.9
S. Typhimurium	16.1
S. Virchow	0.9

Salmonella enteritidis represented 3.6% of the serovars isolated while *Salmonella typhimurium* 16.1%. Out of a total of 418 samples, 18 samples were infected with *Salmonella typhimurium* and 4 were infected with *Salmonella enteritidis*. Following the information available; it can be assumed that at least over 4.3% of flocks are infected with *Salmonella typhimurium*, while over 1% are infected with *Salmonella enteritidis*.

In Malta, Salmonella is the most frequently isolated source of food borne cases in humans, even though the current trend is showing a rise in *Campylobacter*. *Salmonella enteritidis* followed by *Salmonella typhimurium* are the serovars responsible for the highest number of food poisoning cases in humans, both in sporadic and outbreak episodes. The majority of outbreaks occur in summer. This is probably influenced by the average high ambient temperatures of 35 ° C that enables optimal growth and also due to the high concentration of social events in that period.

1.2 Structure and organization of the competent authority

The competent authority for the implementation of the Salmonella National Control programme in broilers of *Gallus gallus* is the Veterinary Regulation, Fisheries Conservation and Control Division (VRFCCD), which falls under the Ministry of Resources and Rural Affairs. The VRFCCD is the competent authority responsible for drawing up the national control programmes under Council Regulation 2160/2003, organizing, executing, collecting and reporting of all data.

The organogramme is at present being amended.

1.3 Laboratories:

The National Veterinary Laboratory of the VRFCDD will be responsible for the analysis of the samples collected under the framework of this programme. The laboratory, to date, is not accredited, however quality assurance systems will be in accordance to the requirements of current EN/ISO standards. The National Reference Laboratory does not yet organize ring trials, however through the NRL, the national veterinary laboratory will be participating in ring trials organized by reference laboratories for which the NRL also participates.

1.4 Examination of samples

Samples will be collected by VRFCDD staff and kept refrigerated until receipt at the laboratory, which will be within 24 hours from collection. The samples will be examined within 48 hours from receipt and kept refrigerated until such time.

Boot swabs taken from one same house will be pooled together.

Analysis of the boot swabs and environmental samples will be carried out in accordance to Commission Regulation 646/2007. The method of analysis used is that recommended by the Community Reference Laboratory for Salmonella, being the current version of draft Annex D of ISO 6579 (2002): "Detection of Salmonella spp. in animal faeces and in samples of primary production". Modified semi-solid Rappaport-Vassiliadis medium (MSRV) will be used as a single selective medium. Serotyping will be carried following the Kaufmann-White scheme.

1.5 Official controls

At feed -level

Currently there are no official controls in place targeted at the Salmonella Control Programme. The raw materials used are normally of EU certified origin (refer to point 2.2.) The table below indicates a proposed sampling programme to be included in the official control of the national salmonella control programmes, once personnel are in place.

Compound feeds	Type	No. of samples
Large feed mills	Concentrates of broiler starter	1
	Layer	2
	Broiler grower/finisher	2
	Turkey grower/finisher	1
Smaller feed mills	Layer	1
	Broiler grower/finisher	1
Homemixers (approx. 20)	Layer	6
	Broiler grower/finisher	5

At flock-level

Taking into consideration the structure of the poultry industry and the epidemiological situation, the competent authority would be carrying out sampling of all broiler flocks registered and operational once annually, between 2 – 3 weeks of age, irrespective of the farm capacity.

The number of the boot/sock swabs to be taken depends on the capacity of the farm. This would substitute one of the sampling under the responsibility of the operator.

The competent authority will be also taking over the sampling delegated to the food business operator, as laid down in Commission Regulation 646/2007, in consideration of the limited capacity of the farms and that there are no private laboratories approved for salmonella microbiological testing in Malta.

Sampling scheme;

The birds are kept in enclosed houses, with the exception of two farms that have a cage system. There are no free-range farms on the Maltese Islands. On any one farm there could be more than one house, however the houses are in very close proximity. All farms operate an all in-all out system and have the same management.

Farms usually manage to rear 4 – 5 cycles per year. The age of slaughter of the broilers can vary depending on the market demand, however on average the animals are slaughtered between 5 - 6 weeks.

Targeted age-group	Samples to be taken
Broilers: 2 weeks prior to slaughter (i.e between 2-3 weeks of age)	Boot/sock swabs*

*The number of the boot/sock swabs to be taken depends on the capacity of the farm.

Distribution of sampling:-

- (i) Six pairs of boot/sock swabs will be taken on the one farm having a holding capacity of over 50,000 (three houses will be sampled).
- (ii) Four pairs of boot / sock swabs (i.e. two houses will be sampled) will be taken on those farms having a holding capacity ranging from under 50,000 to 10,000.
- (iii) Only 2 boot swabs will be taken on all other farms from one house on the farm per production cycle.

The collection of samples, transport, detection and typing are as already indicated in points 1.3 and 1.4.

At slaughterhouse level:

Official controls for salmonella monitoring at slaughterhouse level are not yet in place. A risk assessment has been carried out and the following plan is being proposed.

Considering that the four slaughterhouses have similar capacity; five carcass samples will be tested from one slaughter house per month. Each month a different slaughterhouse will be targeted, therefore covering the four slaughterhouses three times a year. The samples will be taken at random within the month. These samples will be tested at the National Veterinary Laboratory. Requirements E as in Annex II of Regulation 2160/2003 EC for fresh meat will be followed.

The operators carry out regular controls on the cuts they produce once a month which include also isolation for *Salmonella* spp. These samples are analysed at a private laboratory.

1.6 Measures taken with regards to animals and products in which *Salmonella* spp. is detected.

Council Regulation 2160/2003 and Commission Regulation 646/2007 are directly applicable. Only those poultry flocks and their products found to be infected with *Salmonella enteritidis* and *Salmonella typhimurium*, will be considered unfit for human consumption and will be withheld and destroyed in accordance to articles 6 to 11 of CAP. 437, Veterinary Services Act.

(i) In cases where other *Salmonella* spp. are isolated action will be taken for those serovars of public health importance as recommended by the EFSA and the Commission. However even those serovars frequently isolated locally will be addressed. If there is a change in the local trend of the most frequently isolated serovars, during the three-year period of the programme; this will be taken into consideration. Requirements E as in Annex II of Regulation 2160/2003 EC concerning fresh meat will be followed.

Action taken when other *Salmonella* spp. of public health importance are isolated:-

- The official veterinarian i/c of poultry and/ or veterinary support officer/s from the poultry section of Animal Health will carry out an investigation on the farm.
- They would also be responsible for re-sampling when the case arises.
- Re-analysis would be run in parallel with the Public Health Laboratory (National Reference Laboratory for *Salmonella*).

In case there is reconfirmation of the targeted serovars the following actions are taken:-

- Eradication will not be mandatory, however it may be considered in certain cases.
- Biosecurity measures will be strengthened to ensure that the infection does not spread to other holdings; such as, no movement of live animals from farm,

external disinfection of vehicles transporting products out of farm and proper disinfection of equipment used.

- After all infected flock has been slaughtered; operations on the farm will be temporarily suspended, following an order of the CVO. Thorough cleaning and disinfection procedures will be carried out. Repopulation will be permitted only once two consecutive environmental sampling batches taken at a distance of two weeks have resulted negative to *Salmonella* spp. isolation.

(ii) If a positive case of isolation of *Salmonella enteritidis* or *Salmonella typhimurium* is confirmed (refer to point Part B.3) then the flock will be considered as unfit for human consumption and condemned.

- Even in cases that there are different houses on the holding, all the holding will be considered infected.
- The infected flock would be slaughtered on farm and the carcasses disposed of as described in detail in points 4.4.4 and 4.4.6.
- There are no measures to treat salmonella – infected products. Such products would have to be destroyed by incineration.

There is one public incinerator which falls under the administration of the Waste Serv Ltd, which falls under the Ministry of Resources and Rural Affairs. Recalled products have to be transported in leak-proof containers provided for by the Waste-Serv Ltd and then the products will be destroyed through incineration.

No vaccination programme against *Salmonella enteritidis* with either live or dead vaccines are carried out on the national flock .

1.7 National legislation relevant to the implementation of the programme.

The Veterinary Service Act, Chapter 437, art 5.1, states that “the Minister may prescribe rules concerning the prevention and control of diseases”. Council and Commission regulations are directly applicable.

1.8 Financial assistance provided to food and feed businesses in the context of the programme.

The Veterinary Service Act, Chapter 437, art 18.1 regards financial contribution in connection with national schemes for the eradication of particular diseases.

“Collection of information on Zoonosis and Zoonotic Agent Rules” - LN 28/2005 art 8.1. regulates financial contribution for zoonotic control programmes.

The financial contribution would only be calculated and confirmed at the closure of the eradication procedures. However an estimate of the costings would be as follows:

Birds will be calculated at 10 euro per bird.

Incineration would cost 750 euro per ton.

Transport of products or carcasses would cost approximately 60 euro per ton.

Culling of flocks is estimated at 300 Euro per ton (1000 birds = 1ton).

Feeds will be calculated at current market prices; about 350 euro per ton.

2. Concerning food and feed businesses covered by the programme.

2.1 Structure of the production of the given species and products thereof

There are no parent stock flocks on the Islands of Malta and Gozo.

There are two registered hatcheries on the Island of Malta.

Hatching Regulations LN48 of 1997, lays down the provisions that regulate the national hatchery establishments.

Hatching eggs are imported from EU member states, primarily from France, Italy, Netherlands and Belgium. All consignments are imported with the official Intra Trade Certificate issued according to Council Directive 539/90. In 2007, a total of 4.4 million broiler hatching eggs were imported.

The hatcheries are obliged to report to the VFRCCD, as competent authority, the number of hatching eggs imported, submitting a copy of import/trade documents. The competent authority then prints out a "hatch report" which is passed on to the hatchery. This form is returned to the competent authority once the particular batch of eggs have been hatched and sold. This hatch report includes a list of farms which are the destination of chicks sold.

A movement document (attach. 1) is issued by the competent authority and given to the farmer. This document follows the flock up to the slaughterhouse, where the slaughterhouse fills in the number of birds slaughtered. The movement document is then returned to the competent authority to authorize the granting of monetary subsidies.

- **Broiler Farms**

Total Number of registered farms	Malta	Gozo
131	102	29

- **Holding capacity of Farms**

Capacity	No. of farms
Over 50,000	1
20,000 – 49,999	7
10,000 – 19,999	20
5,000 – 9,999	33
2,000 – 4,999	47
1,000 – 1999	13
Less than 1,000	10

The majority of farms have a small capacity.

- **Local Slaughterhouses**

There are four slaughterhouses functioning. All are situated on the island of Malta. Two are situated in the north (Nos.50 / 53) while two are situated in the south (Nos.58 / 63).

In 2007 2,871,352 broilers were slaughtered. The average dead weight is 2.2kgs per broiler.

Poultry are slaughtered after 8pm in the south while the slaughterhouses in the north work during the very early morning hours. The slaughterhouses operate on a five-day week.

- **Capacity of slaughterhouses**

Slaughterhouse ID	Daily capacity heads/ hour	Annual turnout for 2007 / kg
No.50	1100	1,786,339
No.53	900	1,891,838
No.58	1100	1,025,875
No.63	1000	1,649,688

2.2 Structure of the production of feed.

There are six feed mills. These feed mills import and produce the majority of feed supplied to local farms. An average of 200,000 tons of all types of animal feed is produced per year. The two larger feed mills import premixes from approved EU countries (predominantly UK). These are mixed with other ingredients such as cereals and soya imported from EU and Non-EU countries. The other four smaller feed mills import concentrates which are then mixed with other ingredients such as cereals.

A small number of farms carry out home mixing using concentrates to obtain a mash. Legal notice 374/2000 regulates the responsibility of feed mills. An official letter will be sent to all feed mills and farms carrying out home mixing, whereby they will be held responsible for testing their final products. The feed mills will be requested to submit a plan for the following year by November; to the competent authority stating their sampling programme with supporting information. The competent authority will have twenty (20) working days to send in any remarks. The feedmill will be obliged by law to transmit their results quarterly to the competent authority; unless *Salmonella enteritidis* or *Salmonella typhimurium* are isolated. In such cases, the feedmill is to report within three working days to the competent authority. Recall of infected products or any other appropriate action would be taken following an investigation and retesting carried out by the competent authority. Those broiler farms carrying out home mixing will be obliged to conduct microbiological analysis for *Salmonella* in the same way as the feed mills. They will also be required to submit a sampling plan to the competent authority with all supporting information. The same obligations for reporting applicable to the feed mills will also apply in cases of *Salmonella typhimurium* or *Salmonella enteritidis* positive

samples. The competent authority would then carry out an investigation and testing of feed and flock.

Following confirmed positive results the actions stated in point 4.4.4 would apply.

2.3 Relevant guidelines for good animal husbandry practices or other guidelines on biosecurity measures.

Detailed guidelines for good husbandry practices and biosecurity measures on poultry farms have not yet been compiled. However general guidelines are covered in the Code of Good Agriculture Practice (Cogap).

It covers certain practices such as:

- the guidelines for storage of feed
- the quality of building material
- need for a vehicle disinfection pits
- necessity of a manure clamp

All farms producing manure have to store solid manure in an enclosed place known as the manure clamp, for six months a year (from the 15th October to 15th March). All farms are to have a leak proof cesspit, to collect foul water arising from cleaning etc. The manure clamp is to be connected to the cesspit. The water is kept for 15 days then collected by a bowser. These regulations serve to reduce the environmental pollution and the nitrate level in fields fertilised with manure. However, they also provide a tool to permit biosecurity measures to limit spread of disease.

General guidelines on good animal husbandry and biosecurity guidelines covering hygiene management, measures to be taken in cases of salmonella infection and hygiene during transport will be drawn up.

Hygiene management on farm:

The farmer has to obtain an authorization form from the competent authority (annex 2) to be able to buy the day-old chicks from the hatchery. This authorization is generated only if there is at least a nine – week time lapse from the previous authorization. In this way and average of three weeks separates the different rounds breed. After a flock has been all slaughtered, the holdings are well –cleaned out around the perimeter. The bedding is removed and the place is swept and washed with approved disinfectants. A vast majority also whitewash with lime. Pest control (mice, rats and birds) is generally addressed through the use of nets on the windows, blocking any holes in the building structures and the use of venom. Some farms insert blocks of venom in plastic tubes which are placed around the perimeter of the holding, while others spread the venom. Some farms also use pans with foam soaked in disinfectant outside the sheds for disinfecting boots. however not all farmers change their clothing prior to entering the sheds.

Measures for preventing infections:

Most holdings have pits for the disinfection of the vehicles entering or leaving the premises. However none have separate entrances. The feed is bought fresh from the feed mills, even though there are those that also have their own silos. Due to the island's high

humidity levels, farmers are not in the habit of storing large quantities of feed to avoid the formation of yeasts and moulds. Feeds are usually kept in their bags within the sheds in a dark, dry corners.

The water-supply can be direct from the main government supply or from private bore holes. In the latter case, control of the water is purely voluntary, however from the information we have this is not frequently carried out unless the family use the water from the bore hole for their own personal use.

The majority of farms are small in capacity and are family-run, therefore one or two people would be responsible for the daily management of the animals. There is no legal obligation for people handling live animals to carry out medical checks. Outsiders are brought in the holding solely for the purpose of catching the birds prior to slaughter. The farmers transports the live birds to the slaughterhouses using their own personal trucks which are cleaned out by the farmer himself, however the crates are borrowed from the slaughterhouse. The cleaning and disinfection of the crates is the responsibility of the slaughterhouse.

2.4 Routine veterinary supervision on farm.

Routine veterinary inspection on farms:

This is purely voluntary. One of the largest local feed mills provides free technical support. A lot of the farmers buying their feed from this feed mill make regular use of the technical personnel. If there is any cause for suspicion, the company's veterinarian is then called out.

Prior to slaughter a vast majority of the farmers request ante-mortem inspection from a private veterinarian who certifies the size of the flock, that there are no symptoms of disease as that the flock is considered fit to be slaughtered for human consumption. The veterinarian also certifies that no medicinals have been administered.

2.5 Registration of farms.

Legal notice 119/2005 under chapter 36 of the national legislation enforces registration of all farms having more than 20 broilers.

There is also the Special Marketing Policy Programme Maltese Agriculture (SMPPMA) which entitles only registered business operators to a refund of 0.58euro cents per broiler slaughtered.

2.6 Record keeping at Farm.

Farmers are obliged to keep detailed records. This is enforced through the filling in of the information requested on the movement. Subsidy payments depend on the said information being accurate and correct. All farms have an official register they have to fill in daily to keep very basic records like daily mortality, temperature, feed consumption and they can also make other additional notes (e.g. when they meet unexpected high

mortality). In this register they must also keep medicinal records related to every individual batch of broilers that has to be filled in by their private veterinarian. Any medical prescriptions have to be attached to this register. This book is presented to the official veterinarian at the slaughterhouse.

2.7 Documents to accompany animals when dispatched.

Documents to accompany animals when dispatched :

- (i) Document accompanying birds from hatchery to holding:

The farmer has to obtain an authorization form from the competent authority (attach.2) to be able to buy the day-old chicks from the hatchery.

- (ii) Documents accompanying birds from holding to slaughterhouse.

On the information held in the hatch report, a movement document (Attach. 1) is issued by the competent authority and given to the farmer. This document follows the flock up to the slaughterhouse, where the slaughterhouse fills in the number of birds slaughtered. The movement document is then returned to the competent authority to authorize the granting of monetary subsidies.

The farmer can also bring the certificate issued by a private veterinarian who would have carried out an ante-mortem inspection on farm prior to the flock leaving the holding. If the farmer does not present an ante-mortem inspection, therefore the official veterinarian carries out the ante-mortem at the slaughterhouse.

The farmer is also obliged to present the farm register especially if an ante-mortem is not carried out by a private veterinarian on farm.

PART B

1. Identification of programme

Member State	Malta
Disease	Infection of animals with Zoonotic <i>Salmonella</i> spp
Animal population covered by the programme	Broiler flocks of <i>Gallus gallus</i>
Year of Implementation	2009
Reference of this document	MT SAL-BR009
Contact Name	Dr Anthony Gruppeta DG Civil Abattoir Albertown, Marsa Malta Tel: +356.25905168 Fax: +367.25905182 e-mail: evo.mrac@gov.mt 2 nd contact person: Dr. Susan Chircop Tel: +356.25095304 e-mail: susan.chircop@gov.mt
Date sent to the Commission	29 th April 2008

2. Historical data on the epidemiological evolution of Zoonotic salmonella

The epidemiological information available comes from a study carried out was in 2004 as detailed in point 1.1.

3. Description of the submitted programme.

The main objectives of this programme is to monitor and control all broiler flocks of *Gallus gallus* in Malta and Gozo, in accordance to Commission Regulation 2160/2003 for Zoonotic *Salmonella* spp. Flocks found infected with *Salmonella typhimurium* and *Salmonella enteritidis* will be condemned and slaughtered, in order to achieve a reduction in the prevalence of these serotypes in the national flock, as indicated in Commission Regulation 646/2007 article 1, "reduction of maximum percentage of flocks of broilers remaining positive of *Salmonella enteritidis* and *Salmonella typhimurium* to 1% or less by the 31st December 2011

The target population would be all broiler flocks of *Gallus gallus*.

Malta and Gozo will be considered as one region.

All registered and functioning farms will be tested. One hundred and thirty-one (131) farms will be tested, having a total population of approximately 3.4 million.

The testing scheme would follow the programme elaborated in point 1.5:

Targeted age-group	Samples to be taken
Broilers: 2 weeks prior to slaughter (i.e between 2-3 weeks of age)	Boot/sock swabs*

*The number of the boot/sock swabs to be taken depends on the capacity of the farm.

The collection of samples, transport, detection and typing are as already indicated in points 1.3 and 1.4.

The competent authority is also responsible for the national residue plan.

However apart from this programme each farm will be tested for antibiotic-residue during the sampling for the salmonella control programme. Two chickens will be sampled annually, from the same house, where a boot / sock swab has been taken. This applies to all the farms irrespective of the holding capacity.

The six-plate test will be carried out at the National Veterinary Laboratory of the competent authority.

Definition of a positive case:

- (i) In the case of primary positive isolation of *Salmonella enteritidis* / *Salmonella typhimurium*, the flock will be considered positive to Salmonella infection.
- (ii) In the case of re-isolation of *Salmonella enteritidis* or *Salmonella typhimurium* of confirmatory tests.
Confirmation of the initial results may be carried out. Re-analysis may be taken in consideration when, there is still an adequate timeframe, a large flock is under suspicion or when there is a case of positive antibiotic-residue analysis. In this situation, the initial results are considered as suspect until positive isolation of confirmatory tests.
- (iii) In the case of a positive antibiotic residue analysis result but a negative isolation result; the holding is considered positive.

Action taken in on positive flocks is described in point 4.4.4

Definition of a suspect case: primary isolation of *Salmonella enteritidis* or *Salmonella typhimurium*.

When *Salmonella enteritidis* or *Salmonella typhimurium* are isolated from faecal or environmental samples or there is a positive antibiotic - residue analysis but there is no isolation of *Salmonella* spp. ; re-sampling may be considered.

Most holdings have less than 10,000 birds (103 farms out of a total of 131). The broilers are slaughtered at approximately five weeks, therefore in most cases it would not be financially viable to retest the flock. However for the few larger holdings on the Island the occasion may arise that re-sampling would be considered and / or requested by the operator. In such a situation, all houses would be included in the re-sampling scheme, a larger number of samples would be taken and samples would also be taken for antibiotic-residue analysis.

In the case of a positive initial result for antibiotic-residue, samples would be taken after an appropriate time frame for both antibiotic-residue analysis and salmonella spp. isolation.

The microbiological analysis would be run in parallel with the National Reference laboratory.

- the senior veterinary officer (SVO) in charge of the lab would report suspect positives to the animal health section and CVO.
- An official restriction on the farm is issued by the CVO to prevent movement of animals to and from the farm.
- SVO will co-ordinate with the Public Health Laboratory for parallel analysis of suspect samples.
- The official veterinarian i/c poultry together with veterinary support officer/s from the poultry section of animal health will carry out an investigation on the farm and conduct a census.
- The OV or Assistant OV would also be responsible for re-sampling; in which case analysis would be run in parallel with the Public Health Laboratory (National Reference Laboratory for Salmonella).
- No poultry animals or carcasses, animal feed, material or waste may leave the holding without a written authorisation issued by an official veterinarian.
- Persons not directly involved in taking care of the animals are not permitted to enter buildings where infected flocks are kept.
- Appropriate means of disinfection, using a disinfectant officially approved as effective against *Salmonella* spp., is to be used at the entrances and exits of the building housing poultry and of the holding itself.
- Vehicles and equipment used for transport of animals or products have to be cleaned and disinfected with an officially approved disinfectant effective against *Salmonella* spp. immediately after the movement.

Negative diagnosis if re-sampling is considered.

On primary isolation of *Salmonella enteritidis* or *Salmonella typhimurium*, as described above, even though restrictions are issued on the holding, re-sampling may be considered.

(i) If *Salmonella* infection with *Salmonella enteritidis* or *Salmonella typhimurium* is not confirmed on re-analysis and the result for antibiotic-residue analysis is negative, the CVO would consider the initial result as a false positive and withdraw the restrictions placed on the farm. The flock would then be considered as fit for human consumption.

Malta is not taking into consideration vaccination as a preventive measure or treatment of products coming from infected flocks.

4. Measures of the submitted programme

4.1 Summary of measures under the programme

Duration of the programme:

First year 2009

last year: 2011

- Control/Eradication
- Testing
- Killing of animals tested positive
- Extended slaughter or killing

- Monitoring

4.2 The central authority in charge of supervising and coordinating is the Veterinary Regulation Fisheries conservation and Control Division (VRFCCD).

The National Veterinary Laboratory;

(i) Senior veterinary officer will be responsible for:

- appropriate training of personnel responsible for collecting the samples
- in charge of supervising that the programme is adhered to and that the samples are collected according to the programme.
- all necessary material needed for sampling eg. boot swabs, sterile bags, etc are available.
- ensure that samples are analysed in accordance to time frame and methodology as laid down in the programme
- reporting suspect positives / confirmed to the animal health section and CVO
- co-ordinate with the Public Health Laboratory parallel analysis of suspect samples
- inform Director for the Department of Safety of the Food Chain of any infected flocks.
- collecting/ filing all relevant data and reporting results.

Animal Health Department:

(ii) Senior veterinary support officer in charge of the poultry section will be responsible for:

- co-ordinating sampling team
- making appointments with the farmers and preparing daily sampling schedules
- collaborating with the senior veterinary officer i/c lab
- organizing on farm investigation in cases of suspect/confirmed positive results
- collaborate in census, movement restriction, eradication and disinfection measures
- collaborate in farm investigations in view of repopulation of farm
-

(iii) Assistant Veterinary Support Officers will be responsible for:

- Ensuring to follow appropriate training
- collecting and transporting samples appropriately
- deliver samples within 24 hours from collection to the laboratory
- ensure that accompanying documents are filled appropriately

(iv) Veterinary officer i/c poultry

- carry out on-farm investigations in collaboration with senior veterinary support officer i/c poultry section
- co-ordinate and conduct census, movement restriction, disinfection and eradication measures
- submit on farm investigation report to the SVO i/c lab within 48 hours
- co-ordinate farm investigation in view of repopulation
- responsible for recommending repopulation following positive finding after on-farm investigation

(v) Veterinary Officer responsible for by-products:

- is responsible of ensuring that biosecurity measures and provisions in Council Regulation 1174/2002 are adhered to during disposal of carcasses and products.

Animal Welfare Department

(vi) Animal welfare officer:

- responsible for ensuring that animal welfare provisions are respected during killing on farm.

Department for Safety of the Food Chain

(vii) Director is responsible for;

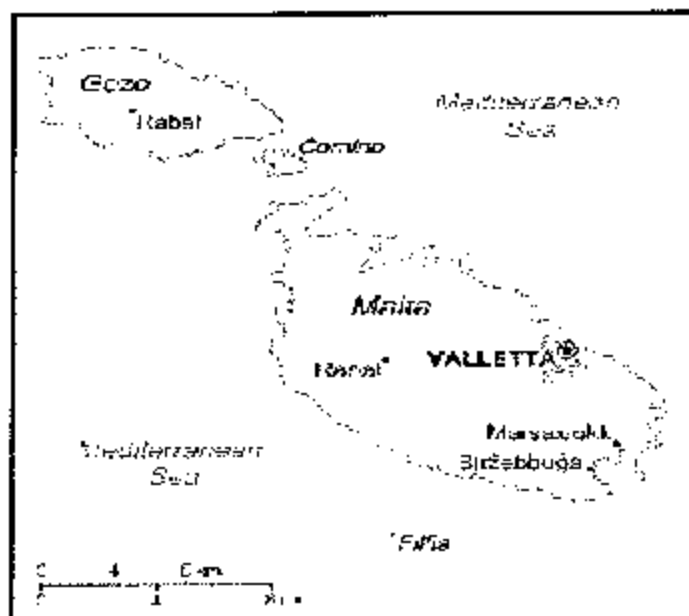
- informing the national contact person for the rapid alert system regarding confirmed infected flocks for *Salmonella enteritidis* and *Salmonella typhimurium*

Chief veterinary Officer

Following recommendations from senior veterinary officer i/c lab and veterinary officer i/c of poultry section;

- Responsible of issuing restriction movement documents
- issuing of documentation for lifting restriction measures on a farm and /or permitting repopulation.

4.3 The Islands of Malta and Gozo are covered by this programme and are considered as one region. The Veterinary regulation Fisheries Conservation and Control Division administers the whole region.



4.4 Measures implemented under the programme

4.4.1 Measures and applicable legislation as regards registration of holdings:

Legal notice 119/2005 under chapter 36 of the national legislation enforces registration of all farms having more than 20 broilers.

4.4.2 Measures and applicable legislation as regards the identification of animals:

N/A

4.4.3 Measures and applicable legislation as regards the notification of disease:

The Veterinary Services Act, Chapter 437, art 35.1(f) provides for the obligation of notification of any suspicion of zoonosis or other disease or any other phenomenon or circumstances liable to present a serious threat to animal or public health.

4.4.4. Measures and applicable legislation as regards the measures in case of a positive case:

Council Regulation 2160/2003 and Commission Regulation 646/2007 are directly applicable. Commercial poultry flocks and their products found to be infected with *Salmonella enteritidis* and *Salmonella typhimurium*, will be considered unfit for human consumption and will be withheld and destroyed in accordance to articles 6 to 11 of CAP. 437, Veterinary Services Act.

- The official veterinarian i/c poultry together with veterinary support officer/s from the poultry section of animal health will carry out an investigation on the farm and conduct a census.
- A restriction notice (legal document) signed by the CVO will be issued on the farm, preventing movement of animals to and from the farm.
- They would also be responsible for re-sampling, if the case arises as described in Part B point 3.
- Microbiological analysis would be run in parallel with the Public Health Laboratory (National Reference Laboratory for Salmonella).
- No poultry carcasses, animal feed, material or waste may leave the holding without a written authorisation issued by an official veterinarian.
- Persons not directly involved in taking care of the animals are not permitted to enter buildings where infected flocks are kept.
- Appropriate means of disinfection, using a disinfectant officially approved as effective against *Salmonella* spp., is to be used at the entrances and exits of the building housing poultry and of the holding itself.
- Vehicles and equipment used for transport of animals or products have to be cleaned and disinfected with an officially approved disinfectant effective against *Salmonella* spp. immediately after the movement.
- The owner of the infected holding or the owner's representative will be served with an official notice in writing ordering the slaughter and destruction of the flock. Valuation of the animals on the holding will normally be carried out before they are killed. The birds will, by preference, be killed by dislocation of the neck. Other methods of killing may include the use of gases such as carbon dioxide or other gases in closed trailers or containers. Carbon dioxide gas in the form of 22kg tanks is available locally. Mobile enclosed trailers or containers can be transported on site if required. Killing of the birds will be supervised by officials from the competent authority and the Official veterinarian responsible for animal

welfare has to ensure that welfare provisions are respected. All personnel involved in culling are required to wear protective clothing, gloves and nose/mouth masks.

- the carcasses will be disposed of through incineration at the thermal unit run by the Waste Serv Ltd. The carcasses have to be transported in leak-proof containers supplied by Waste Serv and transported drip-proof in vehicles that must be disinfected externally before leaving the holding. Officials from the competent authority have to supervise all procedures.
- Feeds will also be considered contaminated and will be destroyed.
- Cleaning and disinfection should be started as soon as the animals have been killed and removed from the holding and must be carried out in a methodical way. Officials from the competent authority should supervise the operations. Detailed procedures would be laid down in the good animal husbandry guideline to be drafted. However, there is a first stage where an officially approved disinfectant would be sprayed and left to act for 24 hours. This will be followed by general cleaning to remove organic matter and dust. Attention should be given to areas and equipment difficult to reach. Fans, drains, slats etc should not be neglected. After thorough cleaning (steam cleaning is recommended) fumigation is carried out. Disinfectants should have time to dry before samples are taken. As a general rule, detergents such as hypochlorites, alkalis, gluteraldehydes and Virkon can be used for the disinfection of poultry houses, wooden structures, concrete surfaces, equipment and vehicles. The aerosol application of gluteraldehyde is suitable for the disinfection of fans and similar equipment.
- Environmental samples are taken and repopulation will be permitted and all restriction bans lifted when two consecutive sample batches, taken 14 days apart result negative to isolation of salmonella spp.

4.4.5 Qualification of animals

There is no national legislation on qualification of flock. This will be considered after the first year or two that the programme has been running.

4.4.6 Control procedures and in particular rules on the movement of animals liable to be affected or contaminated by a given disease

Movement of animals is restricted on *Salmonella enteritidis* or *Salmonella typhimurium* positive cases, as detailed in point 4.4.4.

In other cases of infection of *Salmonella* spp of public health importance, restrictions as detailed in point 1.6 would be carried out.

4.4.7. Measures and applicable legislation as regards the control of the disease.

Council Regulation 2160/2003 and Commission Regulation 646/2007 are followed in setting up the sampling scheme, testing regime and setting of targets

In accordance to Commission regulation (EC) No 1177/2006, no antimicrobials will be used as a preventive measure in the control programme. No vaccination is currently carried out and will not be considered. Treatment of products coming from infected flocks will not be treated in any way but destroyed.

4.4.8 Measures and applicable legislation as regards the compensation for owners of slaughtered and killed animals:

“Collection of information on Zoonosis and Zoonotic Agent Rules” L.N 28/2005, art. 8.1 which falls under the Veterinary Service Act.; and art.8.1. of this same Act, set down provisions for financial compensation.

4.4.9 Information and assessment on biosecurity measures management and infrastructure in place in the flocks involved.

Please refer to Part A point 2.3

5. General description of costs and benefits.

The costs to the farmer will be felt initially in cases of eradication. The farmer will obviously encounter losses following eradication and costs in upgrading holdings. However, in the long run the farmer will have a reduction in costs of medicinals and farm management. They will see an increase in production and financial return also from the overall positive impact consumer confidence in local produce.

The costs on society would result in an increase in waste that will have to be eliminated and also probably in an increase in the cost of poultry products; however, there would be the benefits of food safety.

6. Data on the epidemiological evolution during the last five years:

Refer to Part B . point 2

6.1 Evolution of Zoonotic salmonellosis

6.1.1. Data on evolution of zoonotic salmonellosis

Year: 2004

Situation on date: 31st October 2004

Region	Animal species: Gallus gallus – production flocks				Disease/infection ^(a) : Zoonotic salmonellosis						
	Type of flock ^(b)	Total number of flocks ^(c)	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked ^(d)	Number of positive ^(e) flocks ^(f)	Number of flocks depopulated ^(g)	Total number of animals slaughtered or destroyed ^(h)	Quantity of eggs destroyed (number or kg)	Quantity of eggs channelled to egg products (number or kg)
						(a1)	(a2)	(a3)	(a4)	(a5)	(a6)
Maha, Giza	production	248	3 630 483	248	3 630 483	4	9	42	/	/	/
Total	production	248	3 630 483	248	3 630 483	4	9	42	/	/	/

6.2. Stratified data on surveillance and laboratory tests

6.2.1. Stratified data on surveillance and laboratory tests (one table per year and per disease/species)

Year: 2004
Description of the used serological tests: Animal species^(a): Gallus gallus. Category^(b): broiler flocks

Serotyping of salmonella isolates following the Kaufmann-White scheme.

Description of the used microbiological or virological tests:

ISO 6579 (2002): "Detection of Salmonella spp. in animal faeces and in samples of primary production".

Description of the other used tests: nil

Region ^(c)	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)
Multicross	112	112	418	112	1	1
Total	112	112	418	112	1	1

- (a) Animal species if necessary.
- (b) Category/further specifications such as breeders, laying hens, broilers, breeding turkeys, broiler turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc. when appropriate.
- (c) Region as defined in the approved control and eradication programme of the Member State.
- (d) Number of samples tested.
- (e) Number of positive samples.

6.3. Data on infection (one table per year and per species)

Year: 2004 Animal species^(a): Gallus gallus – broiler flocks

Region ^(b)	Number of herds infected ^(c)	Number of animals infected
Matacillo	55	1,103,396
Total	55*	1,103,396**

(a) Animal species if necessary.

(b) Region as defined in the control and eradication programme of the Member State.

(c) Herds or flocks or holdings as appropriate.

* 55 is referring to the holdings, during the study different flocks from the same holding were found to be infected with different serovars.
 ** 395,451 number of birds found infected with *Salmonella enteritidis*, *Salmonella typhimurium*

7.1.2. Targets on testing of broiler flocks²

Year: 2009

Situation on date: N/A

Region	Animal species: <i>Callus gallus</i>		Zoonotic Salmonellosis - infection ⁽¹⁾									
	Type of flock (a)	Total number of flocks ⁽²⁾	Total number of animals	Total number of flocks under the programme	Expected number of flocks to be checked ⁽³⁾	Number of flocks ⁽⁴⁾ expected to be positive w:		Number of flocks expected to be depopulated ⁽⁵⁾		Total number of animals expected to be slaughtered or destroyed ⁽⁶⁾	Expected quantity of eggs to be destroyed (number of kg) ⁽⁷⁾	Expected quantity of eggs channelled to egg products (number of kg) ⁽⁸⁾
				(a1)	(a2)	(a3)	(a4)	(a5)	(a6)	(a7)	(a8)	(a9)
Maha / Giza	Broilers	131	3,400,000	131	131	7	2	15	9	151,200	7	7
Total		131	3,400,000	131	131	7	2	15	9	151,200	7	7

- (a) For zoonotic salmonellosis indicate the serotypes covered by the control programmes: (a1) for *Salmonella* Enteritidis, (a2) for *Salmonella* Typhimurium, (a3) for other serotypes-specific as appropriate, (a4) for *Salmonella* Enteritidis or *Salmonella* Typhimurium.
- (b) For example, breeding flocks (rearing, adult flocks), production flocks, laying hen flocks, broiler turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc. Flocks or herds or as appropriate.
- (c) Total number of flocks existing in the region including eligible flocks and non-eligible flocks for the programme.
- (d) Check means to perform a flock level test under the programme for the presence of salmonella. In this column a flock must not be counted twice even if it has been checked more than once.
- (e) If a flock has been checked, in accordance with footnote (d), more than once, a positive sample must be taken into account only once.

² Specify types of flocks if appropriate (broilers, layers, broilers).

8. Detailed analysis of the cost of the programme - 2009

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: Number of bacteriological tests (cultivation) planned to be carried out in the framework of official sampling	252 (official) 648 (non-official)* Total:900	35	8,820 22,680	Yes
Antimicrobial residues analysis	Fast: Number of serotyping of relevant isolates tests planned to be carried out	70 (official) 80(non-official)*	56	3,920 4,480	Yes
	Six-plate test	282	6	1,672	yes
1.2. Cost of sampling	Boots/swabs/fuel	650 visits	6	3,900	yes
1.3. Other costs					
2. Vaccination or treatment of animal products					
2.1. Purchase of vaccine/treatment of animal products	NO VACCINATION				
	Number of purchase of vaccine doses planned if a vaccination policy is part of the programme as set out explicitly under point 4 of Annex II				
2.2. Distribution costs					



*Taqsim ta' Regolament Veterinarju,
Konservazzjoni u Kontroll tas-Sajd*

*Veterinary Regulation, Fisheries
Conservation & Control Division*

Broiler Chicks

Batch code: Batch ID in Full

Supplier: Hatchery Name

Batch size: [Batch Size] chicks

Arrival date: [Date of Delivery]

Producer: [Producer Name & Address]

License No. - [Premises Code]

Broiler Sales List

Sub-batch	Date of	Processor	No. Broilers	Total kg
Code	Despatch	Code	Supplied	Liveweight

____/1

____/2

____/3

____/4

TOTAL - _____ kg

No. home consumption: _____

No. died on farm: _____

No. unaccounted for: _____

Dr. Anthony Gruppetta

Producer

Processor

Director General VRFCC

**MALTA
NATIONAL MULTI-ANNUAL
SALMONELLA CONTROL
PROGRAMME
2009-2011
IN BROILER FLOCKS
Gallus gallus
under Commission Regulation
No 646/2007**

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1. Introduction

The main objectives of this programme is to monitor and control all broiler flocks of *Gallus gallus* in Malta and Gozo, in accordance to Council Regulation 2160/2003 for Zoonotic *Salmonella* spp. ; to achieve a reduction of the prevalence of *Salmonella enteritidis* and *Salmonella typhimurium*. Flocks found infected with *Salmonella typhimurium* and *Salmonella enteritidis* will be condemned and slaughtered, in order to achieve a reduction in the prevalence of these serotypes in the national flock, as indicated in Commission Regulation 646/2007 article 1:-

“ reduction of maximum percentage of flocks of broilers remaining positive of *Salmonella enteritidis* and *Salmonella typhimurium* to 1% or less by the 31st December 2011

The control programme will run for three consecutive years.

2. Situation of salmonella infection in the local broiler flock

The only information available comes from a base line study carried out in 2004.

A cross-sectional survey of poultry carcasses was carried out from January to August 2004, to determine the prevalence of Zoonotic *Salmonella*. The samples were taken at the slaughterhouses according to their respective throughput. The sampling scheme was designed to detect a prevalence of 50% with a confidence level of 95%.

A total of 418 samples were collected and analysed at the laboratory of the Food and Veterinary Division of the Veterinary Regulation, Fisheries Conservation and Control Division.

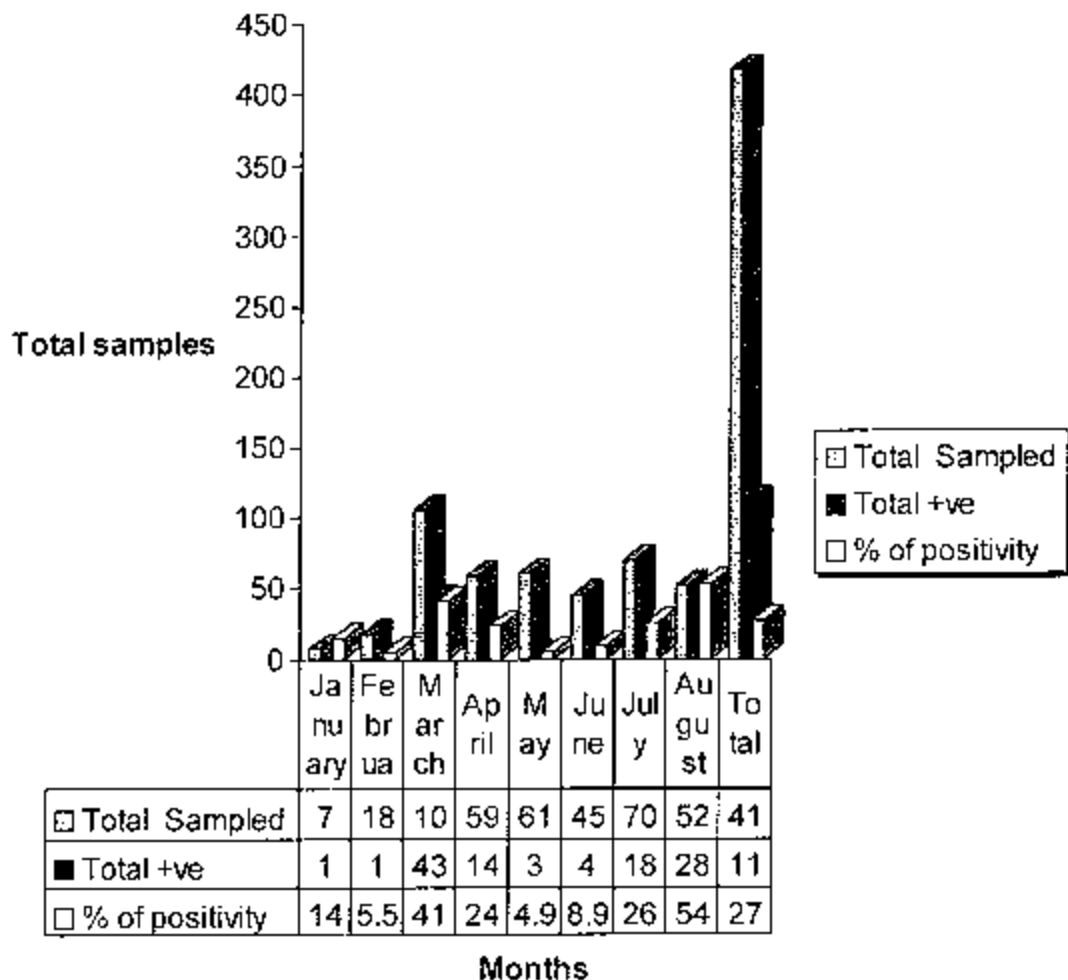
The isolates were sent abroad to be typed at VLA -Weybridge –UK.

The prevalence of salmonella in the local poultry meat was of 26.8% (out of 418 samples, 112 resulted positive).

Salmonella kedougou was the serovar with the highest incidence. *Salmonella enteritidis* represented 3.6% of the serovars isolated while *Salmonella typhimurium* 16.1%. Out of a total of 418 samples, 18 samples were infected with *Salmonella typhimurium* and 4 were infected with *Salmonella enteritidis*.

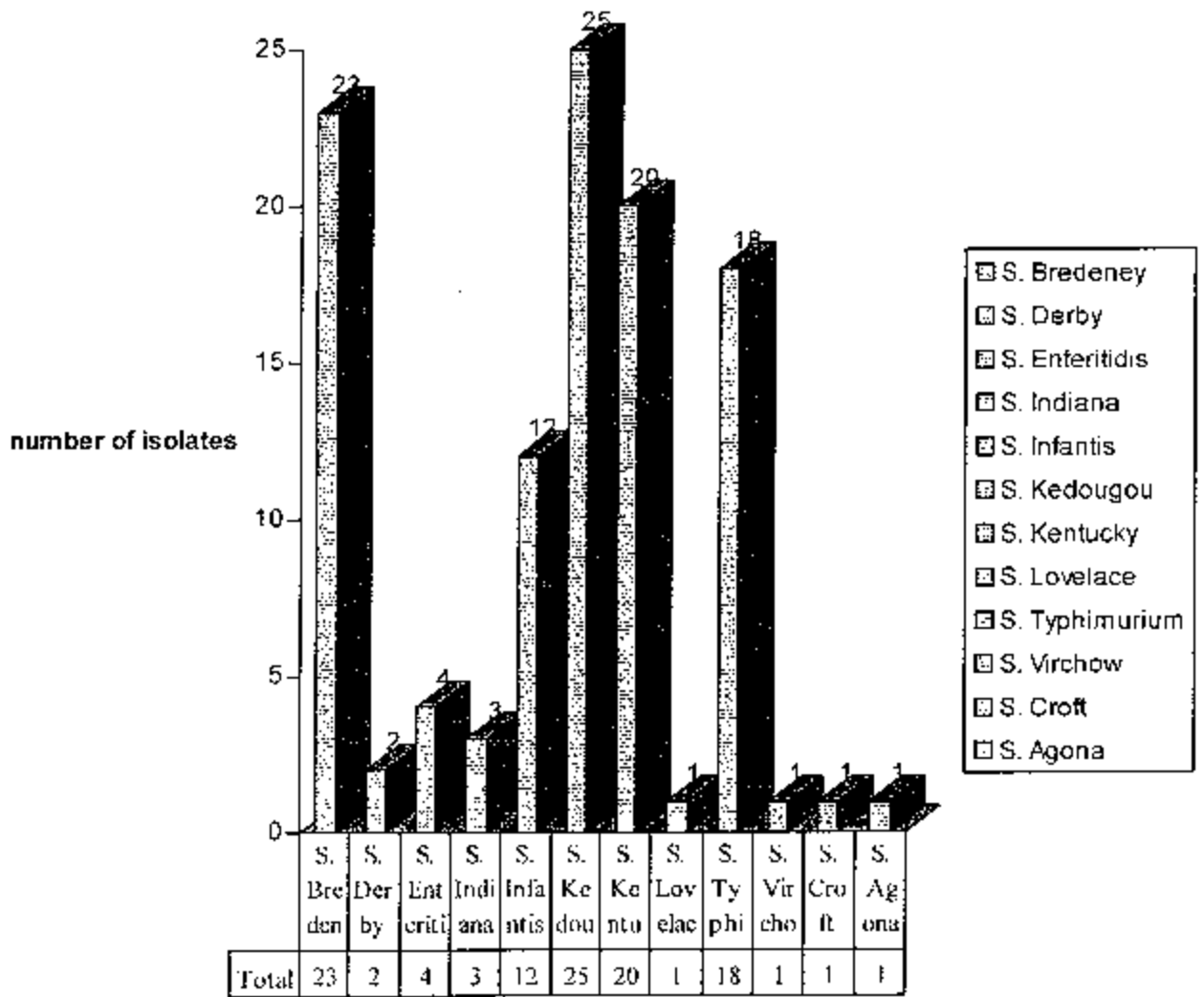
With regards to the distribution of positivity per month, it appears that August, March and July are the months where the peak positivity was registered, with 53.8%, 40.6% and 25.7% respectively.

Percentage of positivity per month



With regards to the serovars isolated, this study has shown that with 25 isolates, Kedougou is the serovar with the highest incidence, followed by Bredenezy with 23, Kentucky with 20, Typhimurium with 18 and Infantis with 12. These serovars represent 87% of the total positivity (see table above).

salmonella serovars



Serovar	% Of Positivity
S. Agona	0.9
S. Bredeney	20.5
S. Croft	0.9
S. Derby	1.8
S. Enteritidis	3.6
S. Indiana	2.7
S. Infantis	10.7
S. Kedougou	22.3
S. Kentucky	17.9
S. Lovelace	0.9
S. Typhimurium	16.1
S. Virchow	0.9

Following the information available; it can be assumed that at least over 4.3% of flocks are infected with *Salmonella typhimurium*, while approximately 1% are infected with *Salmonella enteritidis*.

In Malta, Salmonella is the most frequently isolated source of food borne cases in humans, even though the current trend is showing a rise in Campylobacter. *Salmonella enteritidis* followed by *Salmonella typhimurium* are the serovars responsible for the highest number of food poisoning cases in humans, both in sporadic and outbreak episodes the majority of outbreaks occur in summer. This is probably influenced by the average high ambient temperatures of 35 ° C that enables optimal growth and also due to the high concentration of social events.

3. National legislation applicable to the implementation of the control programme.

3.1 Registration of farms.

Legal notice 119/2005 under chapter 36 of the national legislation enforces registration of all farms having more than 20 broilers.

3.2 Implementation

The Veterinary Service Act, Chapter 437, art 5.1, states that "the Minister may prescribe rules concerning the prevention and control of diseases".

Collection of information on Zoonosis and Zoonotic Agent Rules - LN 28/2005.

Council and Commission regulations are directly applicable.

3.3 Notification

The Veterinary Services Act, Chapter 437, art 35.1(f) provides for the obligation of notification of any suspicion of zoonosis or other disease or any other phenomenon or circumstances liable to present a serious threat to animal or public health.

3.4 Financial Compensation

The Veterinary Service Act, Chapter 437, art 18.1 regards financial contribution in connection with national schemes for the eradication of particular diseases.

Collection of information on Zoonosis and Zoonotic Agent Rules - LN 28/2005 art 8.1. regulates financial contribution for zoonotic control programmes.

4. Competent Authority

4.1 The competent authority for the implementation of the Salmonella National Control programme in broiler flocks of *Gallus gallus* is the Veterinary Regulation, Fisheries Conservation and Control Division (VRFCCD), which falls under the Ministry of Resources and Rural Affairs. The VRFCCD is the competent authority responsible for drawing up the national control programmes under Council Regulation 2160/2003, organizing, executing, collecting and reporting of all data. The VRFCCD administers both islands of Malta and Gozo.

4.2 Animal feed businesses and the poultry industry (both farms and slaughterhouses) also fall under the responsibility of the VRFCCD.

The presence of an official veterinarian on the slaughterline is mandatory, however, at present there are no official veterinarians carrying out routine inspections on poultry farms.

4.3 The National Veterinary Laboratory of the VRFCCD will be responsible for the analysis of the samples collected under the framework of this programme.

4.4 The duties of the different sections of VRFCCD involved in the national control programme are described in detail below:

The National Veterinary Laboratory:

(i) Senior veterinary officer will be responsible for:

- appropriate training of personnel responsible for collecting the samples
- in charge of supervising that the programme is adhered to and that the samples are collected according to the programme.
- all necessary material needed for sampling eg. boot swabs, sterile bags, etc are available.
- ensure that samples are analysed in accordance to time frame and methodology as laid down in the programme
- reporting suspect positives / confirmed to the animal health section and CVO
- co-ordinate with the Public Health Laboratory parallel analysis of suspect samples
- inform Director for the Department of Safety of the Food Chain of any infected flocks.
- collecting/ filing all relevant data and reporting results.

Animal Health Department:

(ii) Senior veterinary support officer in charge of the poultry section will be responsible for:

- co-ordinating sampling team
- making appointments with the farmers and preparing daily sampling schedules
- collaborating with the senior veterinary officer i/c lab
- organizing on farm investigation in cases of suspect/confirmed positive results
- collaborate in census, movement restriction, eradication and disinfection measures
- collaborate in farm investigations in view of repopulation of farm

(iii) Assistant Veterinary Support Officers will be responsible for:

- Ensuring to follow appropriate training
- collecting and transporting samples appropriately
- deliver samples within 24 hours from collection to the laboratory
- ensure that accompanying documents are filled appropriately

(iv) Veterinary officer i/c poultry

- carry out on-farm investigations in collaboration with senior veterinary support officer i/c poultry section
- co-ordinate and conduct census, movement restriction, disinfection and eradication measures
- submit on farm investigation report to the SVO i/c lab within 48 hours
- co-ordinate farm investigation in view of repopulation
- responsible for recommending repopulation following positive finding after on-farm investigation

(v) Veterinary Officer responsible for by-products:

- is responsible of ensuring that biosecurity measures and provisions in Council Regulation 1174/2002 are adhered to during disposal of carcasses and products.

Animal Welfare Department

(vi) Animal welfare officer:

- responsible for ensuring that animal welfare provisions are respected during killing on farm.

Department for Safety of the Food Chain

(vii) Director is responsible for:

- informing the national contact person for the rapid alert system regarding confirmed infected flocks for *Salmonella enteritidis* and *Salmonella typhimurium*

Chief veterinary Officer

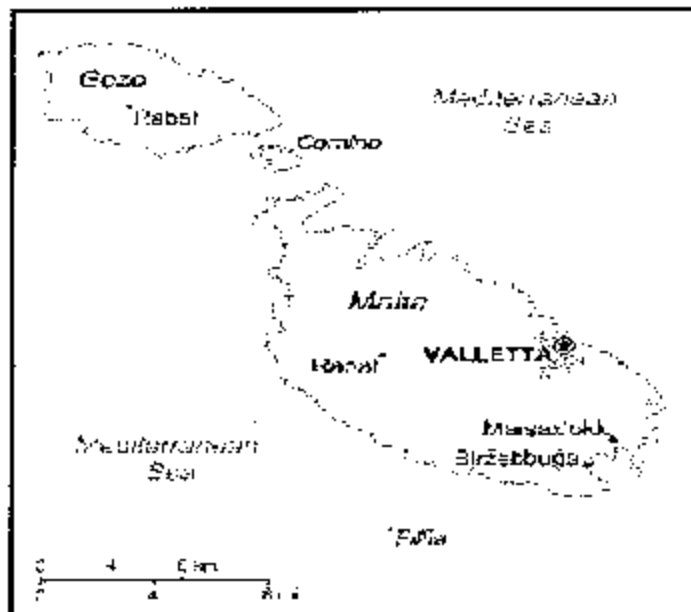
Following recommendations from senior veterinary officer i/c lab and veterinary officer i/c of poultry section;

- Responsible of issuing restriction movement documents
- issuing of documentation for lifting restriction measures on a farm and /or permitting repopulation.

5. Geographic situation.

Poultry farms are to be found on the mainland of Malta and the smaller sister island of Gozo. Malta and Gozo are considered as one region.

All registered and functioning broiler farms will be included in the national control programme.



6. Structure of Poultry Industry

Legal notice 119/2005 under chapter 36 of the national legislation enforces registration of all farms having more than 20 broilers.

There is no parent stock breed on the Islands.

There are two registered hatcheries on the Island of Malta.

Hatching Regulations LN48 of 1997, lays down the provisions that regulate the national hatchery establishments.

Hatching eggs are imported from EU member states, primarily from France, Italy, Netherlands and Belgium. All consignments are imported with the official Intra Trade Certificate issued according to Council Directive 539/90. In 2007, a total of 4.4 million broiler hatching eggs were imported.

The hatcheries are obliged to report to the VFRCCD, as competent authority, the number of hatching eggs imported, submitting a copy of import/trade documents. The competent authority then prints out a "hatch report" which is passed on to the hatchery. This form is returned to the competent authority once the particular batch of eggs have been hatched and sold. This hatch report includes a list of farms which are the destination of chicks sold.

On the information held in the hatch report, a movement document (Attach I) is issued by the competent authority and given to the farmer. This document follows the flock up to the slaughterhouse, where the slaughterhouse fills in the number of birds slaughtered. The movement document is then returned to the competent authority to authorize the granting of monetary subsidies.

Broiler Farms

Total Number of registered farms	Malta	Gozo
131	102	29

Apart from 2 farms which breed in cages, all other broilers are kept in enclosed houses. There are no free-range farms on the Maltese Islands. On any one farm there could be more than one house; however the houses are in very close proximity. All farms operate an all in-all out system and have the same management. Farms usually manage to rear 4 – 5 cycles per year. The age of the broilers can vary depending on the market demand, however on average the animals are slaughtered between 5 - 6 weeks.

Holding capacity of Farms

Capacity	No. of farms
Over 50,000	1
20,000 – 49,999	7
10,000 – 19,999	20
5,000 – 9,999	33
2,000 – 4,999	47
1,000 – 1,999	13
Less than 1,000	10

The majority of farms have a small capacity.

7. Structure of the production of feed.

There are six feed mills. These feed mills import and produce the majority of feed supplied to local farms. An average of 200,000 tons of all types of animal feed is produced per year. The two larger feed mills import premixes from approved EU countries (predominantly UK). These are mixed with other ingredients such as cereals and soya imported from EU and Non-EU countries. The other four smaller feed mills import concentrates which are then mixed with other ingredients such as cereals. A small number of farms carry out home mixing using concentrates to obtain a mash. Legal notice 374/2000 regulates the responsibility of feed mills. An official letter will be sent to all feed mills and farms carrying out home mixing, whereby they will be held responsible for testing their final products. The feed mills will be requested to submit a plan for the following year by November, to the competent authority stating their sampling programme with supporting information. The competent authority will have twenty (20) working days to send in any remarks. The feedmill will be obliged by law to transmit their results quarterly to the competent authority; unless *Salmonella enteritidis* or *Salmonella typhimurium* are isolated. In such cases, the feedmill is to report within three working days to the competent authority. Recall of infected products or any other appropriate action would be taken following an investigation and retesting carried out by the competent authority. Those broiler farms carrying out home mixing will be obliged to conduct microbiological analysis for Salmonella in the same way as the feed mills. They will also be required to submit a sampling plan to the competent authority with all supporting information. The same obligations for reporting applicable to the feed mills will also apply in cases of *Salmonella typhimurium* or *Salmonella enteritidis* positive samples. The competent authority would then carry out an investigation and testing of feed and flock.

Official controls at feed-level;

Refer to point 9.2

Official controls at flock level;

Taking into consideration the structure of the poultry industry, the competent authority would be carrying out sampling of all broiler flocks registered and operational once annually, between 2 – 3 weeks of age, irrespective of the farm capacity.

The number of the boot/sock swabs to be taken depends on the capacity of the farm. This would substitute one of the sampling under the responsibility of the operator.

Refer to point 9.1 for detailed sampling scheme.

The competent authority will be also taking over the sampling delegated to the food business operator, as laid down in Commission Regulation 646/2007, in consideration of the limited capacity of the farms and that there are no private laboratories approved for salmonella microbiological testing in Malta.

8. Local Slaughterhouses

There are four slaughterhouses functioning. All are situated on the island of Malta. Two are situated in the north (Nos.50 / 53) while two are situated in the south (Nos.58 / 63). In 2007; 2,871,352 broilers were slaughtered. The average dead weight is 2.2kgs per broiler.

Poultry are slaughtered after 8pm in the south while the slaughterhouses in the north work during the very early morning hours. The slaughterhouses operate on a five-day week.

Capacity of slaughterhouses

Slaughterhouse ID	Daily capacity heads/ hour	Annual turnout for 2007 / kg
No.50	1100	1,786,339
No.53	900	1,891,838
No.58	1100	1,025,875
No.63	1000	1,649,688

Official controls at slaughterhouse level:

Official controls at slaughterhouse level are not yet in place. A risk assessment has been carried out and the following plan is being proposed:

Considering that the four slaughterhouses have similar capacity;

Five carcass samples will be tested from one slaughter house per month. Each month a different slaughterhouse will be targeted, therefore covering the four slaughterhouses three times a year.

The samples will be taken at random within the month. These samples will be tested at the National Veterinary Laboratory. Requirements E as in Annex II of Regulation 2160/2003 EC will be respected.

The operators carry out regular controls on the cuts they produce once a month which include also isolation for *Salmonella* spp. These samples are analysed at a private laboratory.

9. Sampling Protocol

Laboratory:

The samples will be analysed at the National Veterinary laboratory which falls under the competent authority. The laboratory, to date, is not accredited, however quality assurance systems will be in accordance to the requirements of current EN/ISO standards. The National Reference Laboratory does not yet organize ring trials, however through the NRL, the national veterinary laboratory will be participating in ring trials organized by reference laboratories for which the NRL also participates.

9.1 At flock-level

The competent authority will be responsible for sampling. The competent authority will be taking over the sampling delegated to the food business operator, as laid down in Commission Regulation 646/2007, in consideration of the limited capacity of the farms and that there are no private laboratories approved for salmonella microbiological testing in Malta.

All flocks reared will therefore be sampled by the competent authority between 2 -3 weeks of age, irrespective of the farms capacity.

Def: of flock as per 2160/2003, means all poultry of the same health status kept on the same premises or in the same enclosure and constituting a single epidemiological unit; in the case of housed poultry, this includes all birds sharing the same airspace.

Targeted age-group	Samples to be taken
Broilers: 2 weeks prior to slaughter (i.e between 2-3 weeks of age)	Boot/sock swabs*

*The number of the boot/sock swabs to be taken depends on the capacity of the farm.

Distribution of sampling:-

- (i) Six pairs of boot/sock swabs will be taken on the one farm having a holding capacity of over 50,000 (three houses will be sampled).
- (ii) Four pairs of boot / sock swabs (i.e. two houses will be sampled) will be taken on those farms having a holding capacity ranging from under 50,000 to 10,000.
- (iii) Only 2 boot swabs will be taken on all other farms from one house on the farm per production cycle.

The samples will be taken in accordance to CR 646/2007 (Annex point 3.1) and transported in cooler boxes. The samples will have to be brought into the laboratory within 24 hours after collection.

9.2 At feed -level

Currently there are no official controls in place targeted at the Salmonella Monitoring. The raw materials used are normally of EU certified origin (refer to point 7.) The table

below indicates a proposed sampling programme to be included in the official control of the national salmonella control programmes, once personnel are in place.

Compound feeds	Type	No. of samples
Large feed mills	Concentrates of broiler starter	1
	Layer	2
	Broiler grower/finisher	2
	Turkey grower/finisher	1
Smaller feed mills	Layer	1
	Broiler grower/finisher	1
Homemixers (approx. 20)	Layer	6
	Broiler grower/finisher	5

10. Detection Method

The samples will be tested within 72 hours from sampling. Until such time the samples will be kept refrigerated.

Boot swabs taken from one same house will be pooled together.

Analysis of the boot swab and environmental samples will be carried out in accordance to Commission Regulation 646/2007. The method of analysis used is that recommended by the Community Reference Laboratory for Salmonella, being the current version of draft Annex D of ISO 6579 (2002): "Detection of Salmonella spp. in animal faeces and in samples of primary production". Modified semi-solid Rappaport-Vassiliadis medium (MSRV) will be used as a single selective medium. Serotyping will be carried following the Kaufmann-White scheme.

11. Antibiotic – residue sampling

The competent authority is also responsible for the national residue plan.

However apart from this programme each farm will be tested for antibiotic-residue during the sampling for the salmonella control programme. Two chickens will be sampled annually, from the same house, where a boot / sock swab has been taken. This applies to all the farms irrespective of the holding capacity.

The six-plate test will be carried out at the National Veterinary Laboratory of the competent authority.

12. Estimated number of analysis over the three- year programme

Year	Type of analysis	No. of samples estimated
2009	Microbiology	900
	Serotyping	150
	Antibiotic-residue	262
2010	Microbiology	850
	Serotyping	150
	Antibiotic-residue	262
2011	Microbiology	850
	Serotyping	130
	Antibiotic-residue	262

13.General Restrictions on Salmonella-infected flocks

Council Regulation 2160/2003 and Commission Regulation 646/2007 are directly applicable. Only those poultry flocks and their products found to be infected with *Salmonella enteritidis* and *Salmonella typhimurium*, will be considered unfit for human consumption and will be withheld and destroyed in accordance to articles 6 to 11 of CAP. 437, Veterinary Services Act.

13.1 Definition of a positive case:

- (i) In the case of primary positive isolation of *Salmonella enteritidis* / *Salmonella typhimurium*, the flock will be considered positive to Salmonella infection .
- (ii) In the case of re-isolation of *Salmonella enteritidis* or *Salmonella typhimurium* of confirmatory tests.
Confirmation of the initial results may be carried out. Re-analysis may be considered, especially in consideration of the size of the flock; if there is still an adequate timeframe or when there is a case of positive antibiotic-residue analysis. In this case the initial results are considered as suspect (see Point 13.2) until positive isolation of confirmatory tests.
- (iii) In the case of a positive antibiotic residue analysis result but a negative isolation result; the holding is considered positive.

13.2 Suspect: Primary isolation of *Salmonella enteritidis* or *Salmonella typhimurium*.
When *Salmonella enteritidis* or *Salmonella typhimurium* is isolated from faecal or environmental samples or positive antibiotic – residue analysis but there is no isolation of *Salmonella* spp. ; re-sampling may be considered.

Most holdings have less than 10,000 birds (103 farms out of a total of 131). The broilers are slaughtered at approximately five weeks, therefore in most cases it would not be financially viable to retest the flock. However for the few larger holdings on the Island the occasion may arise that re-sampling would be considered and / or requested by the operator. In such a situation, all houses would be included in the re-sampling scheme, a larger number of samples would be taken and samples would also be taken for antibiotic-residue analysis. In the case of a positive initial result for antibiotic-residue, samples would be taken after an appropriate time frame for both antibiotic-residue analysis and salmonella spp. isolation. The analysis would be run in parallel with the National Reference laboratory.

- the senior veterinary officer (SVO) in charge of the lab would report suspect positives to the animal health section and CVO.
- An official restriction on the farm is issued by the CVO to prevent movement of animals to and from the farm.
- SVO will co-ordinate with the Public Health Laboratory for parallel analysis of suspect samples.
- The official veterinarian i/c poultry together with veterinary support officer/s from the poultry section of animal health will carry out an investigation on the farm and conduct a census.
- The OV or Assistant OV would also be responsible for re-sampling; in which case analysis would be run in parallel with the Public Health Laboratory (National Reference Laboratory for Salmonella).
- No poultry animals or carcasses, animal feed, material or waste may leave the holding without a written authorisation issued by an official veterinarian.
- Persons not directly involved in taking care of the animals are not permitted to enter buildings where infected flocks are kept.
- Appropriate means of disinfection, using a disinfectant officially approved as effective against Salmonella spp., is to be used at the entrances and exits of the building housing poultry and of the holding itself.
- Vehicles and equipment used for transport of animals or products have to be cleaned and disinfected with an officially approved disinfectant effective against Salmonella spp. immediately after the movement.

13.3 Negative diagnosis if re-sampling is considered.

On primary isolation of *Salmonella enteritidis* or *Salmonella typhimurium*, as stated in point 13.2 even though restrictions are issued on the holding, re-sampling may be considered.

(i) If *Salmonella* infection with *Salmonella enteritidis* or *Salmonella typhimurium* is not confirmed on re-analysis and the result for antibiotic-residue analysis is negative, the CVO would consider the initial result as a false positive and withdraw the restrictions placed on the farm. The flock would then be considered as fit for human consumption.

(ii) If there is re-isolation of *Salmonella enteritidis* or *Salmonella typhimurium* or the antibiotic-residue analysis test results positive, then the flock will be considered as

positive to *Salmonella* infection and the actions listed in point 13.4 will be taken. The flock will be deemed as unfit for human consumption.

13.4 Positive case

(I) Isolation of *Salmonella enteritidis* or *Salmonella typhimurium* from initial results of primary sampling.

(II) *Salmonella enteritidis* or *Salmonella typhimurium* infection confirmed following re-analysis of flock when the case arises.

(III) Positive antibiotic-residue result and negative *Salmonella* spp. isolation.

- a restriction notice (legal notice) is issued by the CVO on the farm and the flock will be condemned.
- The owner of the infected holding or the owner's representative will be served with an official notice in writing ordering the slaughter and destruction of the flock. Even in cases that there are different houses on the holding, all the holding will be considered infected.
- Valuation of the animals on the holding will normally be carried out before they are killed. The birds will, by preference, be killed by dislocation of the neck. Other methods of killing may include the use of gases such as carbon dioxide or other gases in closed trailers or containers. Carbon dioxide gas in the form of 22kg tanks is available locally. Mobile enclosed trailers or containers can be transported on site if required. Killing of the birds will be supervised by officials from the competent authority and the Official veterinarian responsible for animal welfare has to ensure that welfare provisions are respected. All personnel involved in culling are required to wear protective clothing, gloves and nose/mouth masks.
- The carcasses will be disposed of through incineration. There is one public incinerator which falls under the administration of the Waste Serv Ltd, which falls under the Ministry of Resources and Rural Affairs. The carcasses have to be transported in leak-proof containers supplied by Waste Serv and transported drip-proof in vehicles that must be disinfected externally before leaving the holding. Officials from the competent authority have to supervise all procedures.
- Feeds will also be considered contaminated and will be destroyed.
- Cleaning and disinfection should be started as soon as the animals have been killed and removed from the holding and must be carried out in a methodical way. Officials from the competent authority should supervise the operations. Detailed procedures would be laid down in the good animal husbandry guideline to be drafted. However, there is a first stage where an officially approved disinfectant would be sprayed and left to act for 24 hours. This will be followed by general cleaning to remove organic matter and dust. Attention should be given to areas and equipment difficult to reach. Fans, drains, slats etc should not be neglected.

After thorough cleaning (steam cleaning is recommended) fumigation is carried out. Disinfectants should have time to dry before samples are taken. As a general rule, detergents such as hypochlorites, alkalis, glutaraldehydes and Virkon can be used for the disinfection of poultry houses, wooden structures, concrete surfaces, equipment and vehicles. The aerosol application of glutaraldehyde is suitable for the disinfection of fans and similar equipment.

14. General criteria for lifting of restrictions

Environmental samples are taken and repopulation will be permitted and all restriction bans lifted when two consecutive sample batches, taken 14 days apart result negative to isolation of salmonella spp.

15. Financial Compensation

The Veterinary Service Act, Chapter 437, art 18.1 regards financial contribution in connection with national schemes for the eradication of particular diseases. "Collection of information on Zoonosis and Zoonotic Agent Rules" - I.N 28/2005 art 8.1. regulates financial contribution for zoonotic control programmes.

16. Vaccination and other preventive measures

In accordance to Commission regulation (EC) No 1177/2006, no antimicrobials will be used as a preventive measure in the control programme. No vaccination is currently carried out and will not be considered. Treatment of products coming from infected flocks will not be treated in any way but destroyed. Carcasses and products from condemned infected flocks will be destroyed through incineration. There is only one thermal unit on the Island of Malta run by the Waste Serv Ltd. The carcasses will be transported in leak-proof containers supplied by waste Serv and transported in drip-proof vehicles that must be disinfected externally prior to leaving the holding. Officials from the competent authority have to supervise all procedures.

17. Measures taken when there is the isolation of other Salmonella spp.

In cases were other Salmonella spp. are isolated action will be taken for those serovars of public health importance as recommended by the EFSA and the Commission. However even those serovars frequently isolated locally will be addressed. If there is a change in the trend of the locally most frequently isolated serovars during the three-year period of the programme; this will be taken into consideration. Requirements E as in Annex II of Regulation 2160/2003 EC concerning fresh meat will be followed.

In cases were other Salmonella spp. of public health importance are isolated :

- The official veterinarian i/e of poultry and/ or veterinary support officer/s from the poultry section of Animal Health will carry out an investigation on the farm.
- They would also be responsible for re-sampling if the case arises.
- Re-analysis would be run in parallel with the Public Health Laboratory (National Reference Laboratory for Salmonella).

In case there is reconfirmation of the targeted serovars the following actions are taken:-

- Eradication will not be mandatory, however it may be considered in certain cases.
- Biosecurity measures will be strengthened to ensure that the infection does not spread to other holdings; such as, no movement of live animals from farm, external disinfection of vehicles transporting products out of farm and proper disinfection of equipment used.
- After all infected flock has been slaughtered; operations on the farm will be temporarily suspended. following an order of the CVO. Thorough cleaning and disinfection procedures will be carried out. Repopulation will be permitted only once two consecutive environmental sampling batches taken at a distance of two weeks have resulted negative to Salmonella spp. isolation.

18. Biosecurity measures currently in place

Detailed guidelines for good husbandry practices and biosecurity measures on poultry farms have not yet been compiled. However general guidelines are covered in the Code of Good Agriculture Practice (Cogap).

It covers certain practices such as:

- the guidelines for storage of feed
- the quality of building material
- need for a vehicle disinfection pits
- necessity of a manure clamp

All farms producing manure have to store solid manure in an enclosed place known as the manure clamp, for six months a year (from the 15th October to 15th March). All farms are to have a leak proof cesspit, to collect foul water arising from cleaning etc. The manure clamp is to be connected to the cesspit. The water is kept for 15 days then collected by a bowser. These regulations serve to reduce the environmental pollution and the nitrate level in fields fertilised with manure. However, they also provide a tool to permit biosecurity measures to limit spread of disease.

General guidelines on good animal husbandry and biosecurity guidelines covering hygiene management, measures to be taken in cases of salmonella infection and hygiene during transport will be drawn up. At present, biosecurity measures in place are voluntary.

Hygiene management on farm:

The farmer has to obtain an authorization form from the competent authority (annex.2) to be able to buy the day-old chicks from the hatchery. This authorization is generated only if there is at least a nine - week time lapse from the previous authorization. In this way and average of three weeks separates the different rounds breed. After a flock has been all slaughtered, the holdings are well -cleaned out around the perimeter. The bedding is removed and the place is swept and washed with approved disinfectants. A vast majority also whitewash with lime. Pest control (mice, rats and birds) is generally addressed through the use of nets on the windows, blocking any holes in the building structures and the use of venom. Some farms insert blocks of venom in plastic tubes which are placed around the perimeter of the holding, while others spread the venom. Some farms also use pans with foam soaked in disinfectant outside the sheds for disinfecting boots, however not all farmers change their clothing prior to entering the sheds.

Measures for preventing infections:

Most holdings have pits for the disinfection of the vehicles entering or leaving the premises. However none have separate entrances. The feed is bought fresh from the feed mills, even though there are those that also have their own silos. Due to the island's high humidity levels, farmers are not in the habit of storing large quantities of feed to avoid the formation of yeasts and moulds. Feeds are usually kept in their bags within the sheds in a dark, dry corners.

The water-supply can be direct from the main government supply or from private bore holes. In the latter case, control of the water is purely voluntary, however from the information we have this is not frequently carried out unless the family use the water from the bore hole for their own personal use.

The majority of farms are small in capacity and are family-run, therefore one or two people would be responsible for the daily management of the animals. There is no legal obligation for people handling live animals to carry out medical checks. Outsiders are brought in the holding solely for the purpose of catching the birds prior to slaughter. The farmers transports the live birds to the slaughterhouses using their own personal trucks which are cleaned out by the farmer himself, however the crates are borrowed from the slaughterhouse. The cleaning and disinfection of the crates is the responsibility of the slaughterhouse.

Routine veterinary inspection on farms:

This is purely voluntary. One of the largest local feed mills provides free technical support. A lot of the farmers buying their feed from this feed mill make regular use of the technical personnel. If there is any cause for suspicion, the company's veterinarian is then called out.

Prior to slaughter a vast majority of the farmers request ante-mortem inspection from a private veterinarian who certifies the size of the flock, that there are no symptoms of disease as that the flock is considered fit to be slaughtered for human consumption. The veterinarian also certifies that no medicinals have been administered.

Record-keeping at farm:

All farms have an official register they have to fill in daily to keep very basic records like daily mortality, temperature, feed consumption and they can also make other additional notes (e.g. when they meet unexpected high mortality). In this register they must also keep medicinal records related to every individual batch of broilers that has to be filled in by their private veterinarian. Any medical prescriptions have to be attached to this register. This book is presented to the official veterinarian at the slaughterhouse.

Documents to accompany animals when dispatched :

(i) Document accompanying birds from hatchery to holding:

The farmer has to obtain an authorization form from the competent authority (attach.2) to be able to buy the day-old chicks from the hatchery.

(ii) Documents accompanying birds from holding to slaughterhouse.

On the information held in the hatch report, a movement document (Attach. 1) is issued by the competent authority and given to the farmer. This document follows the flock up to the slaughterhouse, where the slaughterhouse fills in the number of birds slaughtered. The movement document is then returned to the competent authority to authorize the granting of monetary subsidies.

The farmer can also bring the certificate issued by a private veterinarian who would have carried out an ante-mortem inspection on farm prior to the flock leaving the holding. If the farmer does not present an ante-mortem inspection, therefore the official veterinarian carries out the ante-mortem at the slaughterhouse.

The farmer is also obliged to present the farm register especially if an ante-mortem is not carried out by a private veterinarian on farm.

19. Reporting

The CA would be responsible for the reporting of results to the EU in accordance to CR 646/2007 Annex article 4.

