



Animal &  
Plant Health  
Agency

# Poultry Health Scheme (PHS) Handbook

20 March 2025



Department  
for Environment  
Food & Rural Affairs



Llywodraeth Cymru  
Welsh Government



Scottish  
Government  
gov.scot



© Crown copyright 2025

This information is licensed under the Open Government Licence v3.0. To view this licence, visit [www.nationalarchives.gov.uk/doc/open-government-licence/](http://www.nationalarchives.gov.uk/doc/open-government-licence/)

This publication is available at [www.gov.uk/government/publications](http://www.gov.uk/government/publications)

Any enquiries regarding this publication should be sent to us at

[CSCOneHealthPHS@apha.gov.uk](mailto:CSCOneHealthPHS@apha.gov.uk)

Poultry Health Scheme Team  
Customer Service Centre – One Health  
Level 1, County Hall  
Spetchley Road  
Worcester  
WR5 2NP

Publication Number: PB 14691

Date	Version	Sections Affected	Reason for Change
Sept 2013	v1.0		
20 July 2021	v2.0	all	PHS updated to reflect requirements of new legislative requirements for export to EU and/or NI (Council Directive 2009/158/EC repealed and replaced by Commission Delegated Regulation (EU) 2019/2035)
22 July 2021	v2.1	Annex I, Section 7.1	Correction: frequency/timing of routine monitoring for fowl vs turkeys clarified
20 March 2025	v3.0	2.2, 6.2, Annex V Scenario 5	Surveillance requirements for Salmonella Pullorum/Gallinarum in the hatchery

## Contents

Introduction to the 2021 Revision: What is new? .....	5
Section A - Introduction, Summary and Definitions .....	6
1. Introduction and Definitions .....	6
2. Who is the Poultry Health Scheme (PHS) aimed at? .....	7
3. Which birds are covered? .....	8
4. How to join the Poultry Health Scheme (PHS) .....	8
5. Data protection .....	10
Section B – Membership management .....	11
1. Aim of the Poultry Health Scheme (PHS) .....	11
2. Administration .....	11
3. Membership .....	11
4. Application for Membership .....	12
5. Acceptance onto Poultry Health Scheme (PHS) .....	12
6. Annual Inspections .....	12
7. Suspensions and Revocations .....	13
8. Restoration of Membership .....	15
9. Fees .....	16
10. List of approved establishments and advertisements .....	16
Section C – Requirements for Granting Approval under the Poultry Health Scheme (PHS) .....	17
1. Biosecurity .....	17
2. Biosecurity requirements on approved farms .....	19
3. Biosecurity requirements on approved hatcheries .....	19
4. Surveillance .....	20
5. Facilities .....	21

6. Personnel at PHS approved Hatcheries .....	25
7. Veterinary Medicines .....	25
8. Vaccinations .....	26
9. Compliance with other legislation .....	27
10. Export certification by Official Veterinarians .....	27
Annex I - Poultry Health Scheme (PHS) Testing Schedules.....	28
1. Microbiological quality control programme (hatcheries only) .....	28
2. Testing schedule for <i>Salmonella</i> Pullorum/Gallinarum.....	28
3. Processing of samples and testing methods .....	30
4. Interpretation of results.....	31
5. General testing requirements .....	31
6. Testing schedule for <i>Salmonella arizonae</i> .....	32
7. Testing schedule for <i>Mycoplasma gallisepticum</i> .....	33
8. Testing schedule for <i>Mycoplasma meleagridis</i> .....	36
Annex II – Number of samples: Statistical sampling.....	37
Annex III – Definitions/Glossary.....	39
Annex IV - Useful Links and contacts .....	41
Annex V – Testing scenarios for <i>Salmonella</i> Pullorum / <i>Salmonella</i> Gallinarum .....	43

## Introduction to the 2021 Revision: What is new?

The Poultry Health Scheme (PHS) is a summary of rules required for registration and approval of premises in order to export to the EU and some other countries. The underlying EU legal instrument, [Directive 2009/158](#) was repealed following sweeping legislative changes introduced by the Animal Health Law ([Regulation 2016/429](#)) in the EU.

The updated requirements are listed in [Regulation 2019/2035](#) (hereafter, the Regulation). Granting approval of hatcheries is described in Article 7 and approval of establishments (farms) is laid down in Article 8 of the Regulation. The detailed requirements for biosecurity measures, disease surveillance, microbiological control programme, facilities, personnel, and supervision by the Competent Authority are listed in Annexes I and II of the same Regulation.

Although the objective and the scope of the PHS has not changed, the Regulation added some additional details to the requirements. The main differences are as below:

- The existing requirement to operate a microbiological control programme at the hatchery has been further specified to require at least 60 samples to be taken every 6 weeks (see Annex I. (1)).
- *Salmonella* sampling is required at the hatchery to complement the surveillance on farm (see Annex I. (2) b).
- An additional initial sampling time was added to the *Mycoplasma* testing schedule (see Annex I. (4) and (5)).
- Clinical examination is now required as part of the disease surveillance.
- All testing required for membership of the PHS must be carried out at laboratories designated by the competent authority to undertake diagnostic testing for the purpose of the PHS (laboratory designations are on a pathogen- and test-specific basis). A list of these laboratories can be found on GOV.UK at [PHS Laboratories](#).
- Some records must be retained for longer under the new rules.

As part of the review, we aimed to simplify the structure of this document, so it provides a helpful guide to industry, flock veterinarians, Official Veterinarians (OV) as well as Animal and Plant Health Agency (APHA) staff.

# Section A - Introduction, Summary and Definitions

## 1. Introduction and Definitions

This handbook contains:

- Information for flock owners and exporters
- Information for Animal and Plant Health Agency (APHA) staff
- Information for OV's and flock veterinarians

The Poultry Health Scheme (PHS) is based on the requirements of [Commission Delegated Regulation \(EU\) 2019/2035](#) (hereafter, the Regulation), supplementing [Regulation \(EU\) 2016/429](#) of the European Parliament and of the Council as regards rules for establishments keeping terrestrial animals and hatcheries, and the traceability of certain kept terrestrial animals and hatching eggs. In the EU and Northern Ireland, this Regulation repealed and replaced [Council Directive 2009/158/EC](#) (hereafter, the Directive), on animal health conditions governing intra-Union trade in, and imports from third countries of, poultry and hatching eggs.

The PHS comprises the rules for the registration and approval of premises intending to export *breeding poultry, day old chicks and hatching eggs* from GB to the European Union and/or Northern Ireland. Some non-EU countries also require the premises of origin of some poultry consignments to be part of a 'Government supervised poultry health scheme', in which case the reference in the Export Health Certificate (EHC) means the PHS.

'**Poultry**' is defined in Article 4 of Regulation 2016/429 as "birds that are reared or kept in captivity for

- a) the production of
  - i. meat;
  - ii. eggs for consumption;
  - iii. other products;
- b) restocking supplies of game birds;
- c) the purpose of breeding of birds used for the types of production referred to in points (a) and (b).

**'Day-old chicks'** means all poultry less than 72 hrs old.

**'Hatching eggs'** means eggs, laid by poultry or captive birds, intended for incubation.

**'Breeding poultry'** means poultry 72 hours old or more, intended for the production of hatching eggs.

**'Flock'** 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 housed poultry, this includes all birds sharing the same airspace.

The PHS does not apply to poultry only used for exhibitions, shows or contests and does not apply to table eggs or poultry meat.

## 2. Who is the Poultry Health Scheme (PHS) aimed at?

If you keep poultry, and you wish to either:

- a) export more than 20 birds or hatching eggs from GB to the EU or Northern Ireland;
- b) sell birds or eggs to other PHS members; or
- c) export to certain countries that require compliance (in full or partially) with EU Regulation 2019/2035 or equivalent;

then, in Great Britain, your premises must be officially **approved** and **registered** as a member of the PHS. For export to the EU and/or Northern Ireland, the Export Health Certificates require that live poultry and hatching eggs must come from flocks which have been held for more than six weeks in an establishment approved under the PHS.

If you export poultry in lots of under 20 birds to the EU and/or Northern Ireland, you do not need to be a member of the PHS. However, you still need to comply with certain essential rules and consignments must be accompanied by the relevant model certificate included in Commission Implementing Regulation (EU) 2021/403 for this purpose and requiring certification of the compliance with certain essential EU rules.

If you intend to export poultry (or their hatching eggs) to the EU, NI or a third country, you should always consult the [GOV.UK page](#) containing the relevant Export Health Certificate (EHC) and Notes for Guidance (NFG) documents for the relevant commodity in advance for further details. These documents will contain details of any additional requirements, e.g. to be on a list of eligible establishments for export to a particular country, and/or export health certification and testing requirements.

### 3. Which birds are covered?

The PHS only covers poultry premises and hatcheries. PHS-approved premises must house only poultry. Where appropriate the PHS premises may be defined as a separate part of a larger establishment. However, in that case there must be clear separation between the parts of the premises if they are not all to be covered by PHS rules.

### 4. How to join the Poultry Health Scheme (PHS)

- a) To join the PHS you need to follow the instructions on the relevant [GOV.UK page](#) and complete the application form. The application form can be requested from and should be returned by e-mail with a plan of the premises attached to [CSCOneHealthPHS@apha.gov.uk](mailto:CSCOneHealthPHS@apha.gov.uk). The PHS Team will advise on payment of the registration fee, details of which can be found on GOV.UK at [Poultry Health Scheme \(PHS\) Fees](#).
- b) Arrangements will then be made for an initial inspection of your premises by an APHA veterinarian. This inspection will establish whether your premises and its management procedures meet the requirements of Regulation 2019/2035 (as amended). These requirements can be found in the relevant sections of this Handbook.
- c) The APHA vet inspecting your premises will discuss with you how the requirements of the Regulation apply to your particular circumstances. After the inspection you will be advised of any changes that you may need to make to your premises, or operational procedures, to comply fully with the requirements.
- d) Depending on the species of poultry and other circumstances, e.g. resident birds, and origin of the birds, you may need to undertake initial rounds of testing for *Salmonella* and *Mycoplasma* before being able to export. A general requirement for export is that the eggs/birds originate from premises that have been approved under the PHS for more than 6 weeks. Initial testing must take place during this period. (See Annex I for details).
- e) Systematic records, detailed Standard Operation Procedures (SOPs) and, in the case of hatcheries, a description and procedures for the microbiological control programme as referred to in Art 7 of Regulation 2019/2035, along with results of the specified tests, must be kept and must be available for inspection.
- f) Although the (now repealed) Directive already required PHS members to have a microbiological control programme in place, Regulation 2019/2035 specifies further details regarding the numbers of samples and the frequency of sampling that are required in order to achieve compliance with this requirement of the PHS.



- g) If the veterinary inspection of your premises and operations is satisfactory and your premises is approved, then you will be asked to pay the annual membership fee and veterinary inspection fee. As soon as payment is received your premises will be issued with a membership number and a membership certificate will be sent to you. If the outcome of the inspection is not satisfactory (see also paragraph 8.c above), APHA will write to you to confirm the reasons for failing to meet the required standards and to provide you with the corrective actions needed before membership can be recommended and to inform you if a further visit may be required for this purpose, depending on the nature of the corrective actions to be taken. If a further visit is required, it will be charged to the applicant at the standard APHA inspection rate.
- h) The starting date for your membership will be the date of the satisfactory inspection visit but note that you will not be eligible for export to the EU or Northern Ireland **until 6 weeks** after this date due to requirements in the relevant Export Health Certificates. Additional testing may also be required for newly registered premises during this period, depending on the origin and PHS status of the birds. As an exception, PHS membership is not required for the export to the EU and NI of poultry and hatching eggs for consignments comprising fewer than twenty units and such consignments can be certified using a dedicated Export Health Certificate.
- i) PHS membership and differing residency periods may be required by the competent authorities of countries outside the EU and Northern Ireland. Such requirements are specified in the relevant Export Health Certificate. Model Export Health Certificates can be found on the [Form Finder pages of GOV.UK](#).
- j) From the starting date of your membership, birds and hatching eggs may only enter your flock/hatchery from the following sources:
- i. from PHS establishments or from establishments approved under the equivalent Northern Ireland Poultry Health Assurance Scheme (NIPHAS);
  - ii. from similarly approved establishments in EU Member States; or
  - iii. imported from third countries in accordance with current import requirements using the relevant import health certificate as published on GOV.UK for poultry and hatching eggs over 20 units, i.e. in compliance with PHS requirements;
  - iv. In the case of a hatchery which has been approved for less than 6 weeks, day-old birds may only be moved to establishments in GB. Eggs and day-old birds can only be exported to the EU or NI from 6 weeks after the approval date of the hatchery (and subject to initial testing).

- k) If you have a special requirement to introduce stock from non-PHS sources, in order to enrich your genetic base, you must contact your Regional APHA office to discuss the necessary procedures, which may involve quarantine and testing (at designated laboratories for the purpose of the PHS) of the introduced birds and/or temporary suspension of your membership until the PHS requirements are fulfilled.
- l) A veterinary inspection, either by an APHA Veterinary Officer (VO) or an Official Veterinarian (OV), will be required every year, which is subject to charging.
- m) You will be also asked to pay an annual membership fee which will vary according to whichever inspection option you choose i.e. APHA VO or OV.
- n) Membership of the PHS will last for one year (365 days) from the date of approval.
- o) Membership may be suspended or revoked if any of the membership rules are contravened, or if Avian Influenza, Newcastle disease, *Salmonella* or *Mycoplasma* covered by the PHS, are suspected and/or confirmed on your premises (see Section B (7) and (8)).

## 5. Data protection

Defra, the Scottish Government, the Welsh Government, and the Food Standards Agency are data controllers in common in respect of relevant personal data processed by the Animal and Plant Health Agency (APHA). For the purposes and usage of the data and the data sharing arrangements, please see the full Data Protection Statement on the APHA website. A hard copy of this information can be provided if required; please contact your local APHA Office/Laboratory. APHA will not permit any unwarranted breach of confidentiality or act in contravention of their obligations under the [Data Protection Act 2018](#).

# Section B – Membership management

## 1. Aim of the Poultry Health Scheme (PHS)

To implement a system for the approval and registration of establishments in Great Britain officially recognised as meeting the requirements of Commission Delegated Regulation (EU) 2019/2035 supplementing Regulation (EU) 2016/429 of the European Parliament and of the Council as regards rules for establishments keeping terrestrial animals and hatcheries, and the traceability of certain kept terrestrial animals and hatching eggs (as amended).

## 2. Administration

The PHS is operated by the Animal and Plant Health Agency (APHA); an executive agency of Defra.

## 3. Membership

- a) Membership of the PHS is open to individuals or companies in Great Britain, operating at specified premises. A member operating with separate premises at more than one location will be required to register each individual premises separately.
- b) The categories of membership of the PHS are:
  - i. Flock;
  - ii. Hatchery; and
  - iii. Combined Flock and Hatchery.
- c) Membership of the PHS must be approved by APHA. A member may withdraw from the PHS at any time (notice in writing will be required) but will not be entitled to a refund of any part of the registration or membership fees.
- d) Re-admission to the PHS will be at APHA's discretion. A further registration fee will be payable.
- e) When a member's premises is sold, or otherwise transferred, the new occupant must apply for membership in the usual way. Such sales or transfers must not be made on the assumption that the premises will automatically continue to qualify for membership of the PHS.

## 4. Application for Membership

The application form should be returned by e-mail to [CSCOneHealthPHS@apha.gov.uk](mailto:CSCOneHealthPHS@apha.gov.uk) with the registration fee. APHA will process your application and ensure that a VO inspection is arranged as soon as possible.

## 5. Acceptance onto Poultry Health Scheme (PHS)

- a) Once a satisfactory VO inspection report has been received by APHA and the appropriate membership fee has been paid an individual registration number will be allocated and a confirmation letter be sent out by APHA Worcester. Your PHS approval number will mirror your County/Parish/Holding (CPH) number. If you do not already have a CPH number for the site where your poultry are kept, in England and Wales you should contact the Rural Payments Agency (RPA) on 03000 200 301 to obtain one. In Scotland, please contact Scottish Government Rural Payments and Services. A membership certificate including this number will be issued to the member. Please note that after initial approval, no exports to EU/NI can take place during the first six weeks of membership. During the initial six weeks period, the testing requirements for the relevant species must be met.
- b) Once PHS membership is approved, in order to maintain the PHS membership of the approved premises after the 365 days approval period, a chargeable veterinary inspection by a VO or an OV will be required every year. You will also be asked to pay an annual membership fee.

## 6. Annual Inspections

- a) To have your membership renewed you will have to send a renewal application form along with the annual membership fee to APHA before the validity of your membership certificate lapses. APHA will send you a letter with a reminder one month before your renewal is due.
- b) Upon receipt of your application with the membership fee, APHA will issue a new membership certificate valid for a further 365 days from your renewal date.
- c) A satisfactory veterinary inspection must take place once a year on or before the anniversary of the previous inspection. APHA will write to you to advise you if the inspection is overdue. If no inspection report is forthcoming, then your membership will be suspended with effect from the missed annual re-approval date and ultimately revoked if there is a further delay in APHA receiving your inspection report.

- d) Members may elect to have their annual inspections made by either an APHA veterinarian or by an OV nominated by the member. You should declare your preferred option in the renewal application form.
- e) If the member opts for a VO inspection this will be chargeable by APHA.
- f) If the member opts for an OV inspection the nominated veterinary surgeon must be an OV on the panel for export/import of poultry, and to avoid any conflict of interest, he/she must not be employed whole time by the member.
- g) Your Regional APHA office can supply a list of eligible OVs if required. **If the member chooses the OV option, it is the member's own responsibility to arrange for the OV to make the annual inspection.** The OV of your choice should send the completed inspection report to APHA.
- h) The fees of the OV for the inspection are a matter for **private arrangement between the OV and the member, and they will be in addition to PHS membership fees.**
- i) **Where members have opted for inspections to be done by an OV and an unsatisfactory report is received, your membership may be suspended or revoked as necessary.**
  - If membership is revoked, a visit by a VO will be required before membership is re-established and you will be asked to pay for a registration fee again.
  - If membership is suspended and the reason(s) for the suspension have been resolved by the Member, then a visit by a VO may be required before suspension is lifted.
  - Such visits will be chargeable by APHA.

## 7. Suspensions and Revocations

### (1) Membership will be suspended for any of the below reasons:

- a) If the conditions laid down in Articles 7 and 8 to Regulation (EU) 2019/2035 are no longer met (as outlined in Sections C, D and E);
- b) Pending the completion of disease investigation if:
  - i. avian influenza or Newcastle disease is suspected on the premises;
  - ii. poultry or hatching eggs have been received from establishments with a suspected or confirmed case of avian influenza or Newcastle disease;

- iii. contact liable to transmit disease has occurred with establishments where avian influenza or Newcastle disease has been confirmed;
- c) subject to the relevance for the particular poultry species, while further tests are performed if the results of surveillance at establishment indicate suspicion of infection with *Salmonella Pullorum*, *Gallinarum* or pathogenic *arizonae* of turkeys, or *Mycoplasma gallisepticum* or *M. meleagridis*;
- d) until completion of measures required by a notice served by a VO or OV if the appropriate disease surveillance (if required) is not carried out at the establishment and/or the establishment does not satisfy the requirements of Regulation (EU) 2019/2035, outlined in Section B or C;
- e) if APHA has not received a renewal application form together with the membership fees and your membership has lapsed beyond the 365-day period;
- f) if fees are not paid to APHA;
- g) if a satisfactory veterinary inspection has not been completed within the previous 12 months.

**(2) Membership will be revoked for any of the below reasons:**

- a) if avian influenza or Newcastle disease is confirmed on the premises;
- b) if subject to the relevance for the particular poultry species, the presence of *S. Pullorum*, *Gallinarum*, pathogenic turkey *arizonae* strains, *Mycoplasma gallisepticum* or *Mycoplasma meleagridis* is confirmed on the premises;
- c) if, after a VO or OV has served a second notice, requiring to implement the appropriate disease surveillance at the establishment and/or to bring the establishment in line with the requirements of Regulation 2019/2035, outlined in this Handbook and action has not been taken;
- d) if membership has lapsed beyond the 365-day period and APHA has not received a renewal application together with the membership fee 30 days after the date when renewal is due.
- e) if fees are not paid to APHA
- f) If a satisfactory veterinary inspection report has not been received within 3 weeks of due date.

## 8. Restoration of Membership

Approval may be restored if it was revoked for one or more of the below reasons:

- a) Confirmation of avian influenza or Newcastle disease: membership may be restored 21 days after completion of the cleansing and disinfection protocol following depopulation.
- b) Infection caused by *S. Pullorum*, *Gallinarum*, pathogenic turkey *arizonae strains* of turkeys, membership may be restored after negative results have been recorded in two rounds of suitable tests. APHA to advise on the number and type of samples and the methodology according to the circumstances of the case. Test rounds to be performed with an interval of at least 21 days on the establishment following depopulation and disinfection of the infected flock for which the effectiveness has been verified by checking the standard of the cleansing and disinfection protocol and, where appropriate, by suitable tests on dried surfaces. APHA staff may be required to carry out the sampling and testing and to advise on the effectiveness of disinfection.
- c) Presence of *Mycoplasma gallisepticum* or *Mycoplasma meleagridis* in relevant poultry species, if either:
  - i. negative results have been recorded in two tests performed on the flock with an interval of at least 60 days. APHA will advise on the number and type of samples to be taken; or
  - ii. negative results have been recorded in two tests performed with an interval of at least 21 days on the establishment after disinfection following depopulation of the entire infected flock. Verification of the effectiveness of disinfection is not required for *Mycoplasmas* but a visual inspection is likely to be required.
- d) Non-compliance with the rules of Regulation 2019/2035, subject to notices served by an APHA veterinarian or OV: membership may be restored when APHA agrees that all the requirements of the Regulation are being complied with.
- e) Membership has lapsed beyond the 365-day period and a satisfactory annual visit has not been completed: membership may be restored at the discretion of APHA. A satisfactory inspection must be completed, and a further registration fee will be payable.

## 9. Fees

- a) The current fees are available on GOV.UK at [Poultry Health Scheme \(PHS\) Fees](#).
- b) The PHS Fees will be reviewed annually.
- c) The registration fee is payable in advance by new members when they apply to join the PHS.
- d) The membership fee is payable on acceptance into the PHS and then annually prior to expiry of the membership certificate. A reminder will be issued, 4-6 weeks before the renewal fee is due.
- e) A separate Inspection fee will be charged for any re-inspections carried out by an APHA VO in connection with follow-up visits to ascertain that any non-compliances regarding premises, operational standards or disease status have been rectified or resolved or for the purpose of lifting a suspension or a re-approval visit.
- f) Any member who fails to pay any fee due to APHA under the PHS may have membership of the PHS suspended or revoked in relation to the premises in respect of which the fee is due. The member will be informed in writing and given an opportunity to make representations.

## 10. List of approved establishments and advertisements

- a) The Regulation requires Central Competent Authorities to make publicly available the list of establishments approved and registered in accordance with the Regulation. The list of PHS approved establishments is available on GOV.UK at [Poultry Health Scheme Membership List](#).
- b) A member may draw attention to his membership of the PHS by advertising, provided that all such advertisements correctly describe their status in the PHS. APHA reserves the right to require the withdrawal of any advertising material which it considers to be inaccurate.



# Section C – Requirements for Granting Approval under the Poultry Health Scheme (PHS)

**Farms** are required to demonstrate compliance with the rules of the PHS (and Regulation 2019/2035) regarding:

- Biosecurity (point 1 of Part 4 of Annex I to Regulation 2019/2035);
- Surveillance and (point 2 of Part 4 of Annex I to Regulation 2019/2035);
- Facilities (point 3 of Part 4 of Annex I to Regulation 2019/2035)

**Hatcheries** must meet the above requirements with regards to:

- Biosecurity (point 1 of Part 3 of Annex I to Regulation 2019/2035)
- Surveillance (point 2 of Part 3 of Annex I to Regulation 2019/2035)  
and  
(Parts I and II to Annex II to Regulation 2019/2035)
- Facilities (point 3 of Part 3 of Annex I to Regulation 2019/2035)
- Personnel (point 4 of Part 3 of Annex I to Regulation 2019/2035)
- Supervision by the CA (point 5 of Part 3 of Annex I to Regulation 2019/2035).

## 1. Biosecurity

Biosecurity is the prevention of disease-causing agents entering or leaving any place where they can pose a risk to farm animals, other animals, humans or the safety and quality of a food product. The same principles apply within the farm, minimising the risk of disease spreading between animals and groups.

A high level of protection against disease must always be maintained in PHS approved establishments, through employment of effective biosecurity measures.

## Biosecurity in the Poultry Industry

- (1) General Points
  - a) The presence of any large groups of poultry, in intensive conditions, provides a large pool of susceptible birds. It is critical that diligence is exercised when such a unit is present on a farm, especially when the unit is part of a wider mixed farming operation. Game birds, backyard poultry flocks and large populations of wild birds may be particular hazards in relation to PHS organisms. Poultry are susceptible to several important infections that can be transferred to humans. These include *Salmonella* spp. and *Campylobacter* spp.
  - b) Codes of Practice (as well as APHA) provide specific advice which covers the importance of:
    - i. careful cleansing and disinfection of units before stocking and restocking;
    - ii. effective control of farm pests;
    - iii. separation of the unit from other farm activity;
    - iv. rigorous hygiene measures when entering and leaving the unit (e.g. separate clothing and footwear);
    - v. the need to ensure that all inputs such as feed, water and bedding are safe.
- (2) Codes of Practice and assurance schemes in the poultry industry
  - i. European rules for *Salmonella* control
  - ii. Community Guide for good hygiene practices in pullet rearing and egg laying flocks
  - iii. Biosecurity and preventing welfare impacts in poultry and captive birds
  - iv. Code of Practice for the control of *Salmonella* in Commercial Egg Laying Flocks
  - v. Code of Practice for the prevention of *Salmonella* in chickens reared for meat on farm
  - vi. Code of Practice for the prevention and control of *Salmonella* in breeding flocks and hatcheries
  - vii. Lion Code of Practice

Also, find more information on general [biosecurity and good hygiene](#) advice.

## 2. Biosecurity requirements on approved farms

- a) The hatching eggs must be:
  - i. collected at frequent intervals, at least daily and as soon as possible after laying;
  - ii. cleaned and disinfected as soon as possible;
  - iii. placed either in new or in cleaned and disinfected packaging material;
- b) If an establishment houses poultry species of the orders Galliformes and Anseriformes at the same time, a clear separation must be made between them.
- c) Appropriate sanitary breaks must be taken after the cleaning and disinfecting operations and prior to the arrival of any new flock of poultry in the facilities where poultry is kept.
- d) Visitors must wear protective clothing and the personnel must wear appropriate working clothing and act in accordance with the hygiene rules drawn up by the operator.
- e) An appropriate system must be in place to ensure the collection of wastewater.

## 3. Biosecurity requirements on approved hatcheries

- a) Hatching eggs of poultry must come either from PHS approved establishments keeping breeding poultry or from other PHS hatcheries;
- b) Eggs must be cleaned and disinfected, between the time of their arrival at the hatchery and the incubation process or at the time of their dispatch unless they have been previously disinfected on the establishment of origin;
- c) The following must be cleaned and disinfected:
  - i. the incubators and equipment after hatching;
  - ii. the packaging materials after each use, unless they are disposable to be destroyed after first use;
- d) An appropriate system must be in place to ensure the collection of wastewater;
- e) Protective clothing is provided for visitors working;
- f) Appropriate working clothing and the code of conduct with hygiene rules must be provided to personnel.

## 4. Surveillance

Depending on the type of poultry being kept on the establishment, their origin, and whether they are present on site at the time of the initial examination, routine testing for certain *Salmonellas* and *Mycoplasmas* may be required.

**All test regimes are subject to regular review. You will be notified in writing of any changes.**

The current testing requirements are laid out in **Annex I** of this handbook. A brief summary is included in the following table:

	Salmonella			Mycoplasma	
	<i>S. Pullorum</i>	<i>S. Gallinarum</i>	<i>S. arizonae</i>	<i>Mycoplasma gallisepticum</i>	<i>Mycoplasma meleagridis</i>
<b>Turkeys</b>	Required	Required	Required	Required	Required
<b>Fowl</b>	Required	Required	-	Required	-
<b>Ducks</b>	Required	Required	-	-	-
<b>Pheasants Guinea fowl Partridges Quail</b>	Required	Required	-	-	-
<b>Geese Pigeons Ratites</b>	-	-	-	-	-

All testing required for membership of the PHS must be carried out at laboratories designated by the competent authority to undertake diagnostic testing for the purpose of the PHS (laboratory designations are on a pathogen- and test-specific basis).

A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at [PHS Laboratories](#).

The PHS member must pay the cost of all sampling and testing associated with the PHS.

### Surveillance on premises with resident flocks at the time of application

APHA will advise on any particular need for your flock or the environment of your establishment to undergo additional testing, e.g. when resident birds are present on the premises before approval and following confirmation of any of the diseases covered by the PHS.

As a general rule, newly approved premises may not export to EU/NI until they have been members of the PHS for at least 6 weeks.

**For newly approved premises with resident flocks at the time of approval**, this period starts from the date on which a VO inspection visit took place with a satisfactory result. Resident flocks must be tested twice for the relevant pathogens, as applicable during the 6-week introductory period. The interval between tests must be between 14 and 42 days. APHA will issue the letter of membership confirmation once APHA received the second set of negative test results.

**For premises that were inspected and approved whilst free from stock**, the 6 weeks introductory period starts at the time of population of the premises. If the birds originate from premises/flocks that have been members of the PHS for at least 6 weeks, no initial testing of the birds is required during the 6-week introductory period. In any other case, the testing must be carried out according to the previous paragraph.

Sampling and testing must be done under the rules of the PHS (See Annex I). For *Mycoplasma*, testing by bacteriology is allowed but not recommended in this case, as it is impractical because negative results can be confirmed only after at least 21 days of culture.

Dispatch of eggs to PHS approved hatcheries during this period is allowed within GB. However, eggs and day-old birds must only be exported to the EU or Northern Ireland if the 6 weeks approval period for the hatchery and the flock(s) of origin has elapsed at the time of dispatch for export.

## 5. Facilities

### 5.1 Facilities on PHS approved farms

- a) The setting and layout of the facilities must be compatible with the type of production followed, ensuring that the introduction of disease can be prevented and, if it is introduced, enabling it to be controlled. If an establishment houses several species of poultry, there must be a clear separation between them.
- b) The facilities must provide good hygiene conditions and allow health monitoring to be carried out.
- c) The equipment must be compatible with the type of production pursued and allow effective cleansing and disinfection of the facilities and of vehicles used for transporting poultry and eggs at the most suitable point.

### 5.2 Farm Operations

- a) Measures to protect against the introduction of disease must be used and rearing techniques must be based on high biosecurity principles and procedures including, where feasible, the all-in/all-out principle. Cleansing and disinfection must be carried out on that part of the establishment following depopulation.

- b) The premises must contain only poultry and hatching eggs:
- i. from PHS establishments;
  - ii. from establishments in European Union Member States similarly approved in accordance with Regulation 2019/2035;
  - iii. imported from third countries in accordance with Regulation 798/2008.
- c) Hygiene rules must be defined in writing by the management and agreed by the inspecting APHA VO or OV. All personnel and visitors must wear appropriate protective clothing.
- d) Buildings, pens, and equipment must be kept in good repair.
- e) When applicable, eggs must be collected at frequent intervals, at least daily and as soon as possible after laying and must be disinfected as soon as possible, unless disinfection takes place at the hatchery within GB.
- f) The owner or agent must notify the OV of any variation in hatchability or any other sign suggesting the presence of Newcastle disease, avian influenza, the specified *Salmonella* or *Mycoplasma* species. Any person suspecting the presence of disease must notify APHA immediately following disease notification rules so a veterinary enquiry can be made by a VO. If necessary, samples for diagnosis must be submitted without delay to the appropriate APHA laboratory.
- g) PHS Members' Standard Operating Protocols (SOPs) shall contain a written protocol for all sampling and testing procedures. This should include the name of the veterinarian responsible, test type and laboratory used.
- h) The following flock records must be kept after the disposal of the flock for:
- at least three years:**
- movement of stock onto and off the premises;
  - production performance;
  - morbidity and mortality with causes;
  - any laboratory tests with results
  - place of origin of the poultry
  - visitors and deliveries;
  - details of chemical usage

- records of medicine/vaccine administration – it is a legislative requirement that medicine records are kept for 3 years.

**at least 5 years:**

- In the case of medicines with withdrawal periods,
- i) Where any disease covered by the PHS occurs, the results of laboratory tests must be communicated immediately to the relevant local APHA office.

### 5.3 Facilities on PHS approved Hatcheries

- a) The hatchery must be physically and operationally separate from rearing facilities. The layout must allow the following operations to be kept separate;
- i. egg storage and grading;
  - ii. disinfection;
  - iii. incubation;
  - iv. hatching;
  - v. preparation and packaging of chicks/goods for despatch.
- b) Buildings must be protected against wild birds and rodents.
- c) Walls and floors must be of hard-wearing, impervious and washable materials.
- d) Any natural or artificial lighting, air flow and temperature systems must be appropriate to the operation carried out.
- e) Provision must be made for the hygienic disposal of hatchery waste.
- f) Equipment must have smooth and waterproof surfaces.

### 5.4 Hatchery Operations

- a) Hatcheries must operate on a one-way circuit for eggs, mobile equipment, and personnel.
- b) Hatching eggs must only be derived:
- i. from PHS establishments;
  - ii. from establishments in European Member States similarly approved in accordance with Regulation 2019/2035; or
  - iii. imported from Third Countries in compliance with Regulation 2019/2035.

- c) Hygiene rules must be defined in writing by the management and agreed by the inspecting OV/VO. All personnel and visitors must wear appropriate protective clothing.
- d) Buildings and equipment must be kept in good repair.
- e) The following must be disinfected:
  - i. eggs – between the time of their arrival at the hatchery and the incubation process or at the time of their dispatch for trade within the Union or export to the EU or NI, unless they have been previously disinfected at the breeding establishment of origin;
  - ii. incubators – regularly;
  - iii. hatchers and equipment – after each batch;
  - iv. chick boxes, containers, and delivery vehicles – after each delivery/collection
- f) Records must be kept, by flock if possible, for:

**At least three years:**

- origin of eggs and date of arrival;
- hatchability;
- any abnormalities;
- any laboratory tests with results;
- vaccination details;
- numbers and destinations of eggs not incubated/disposed of;
- destinations of day-old chicks;
- visitors and deliveries;
- records of medicine/vaccine administration – it is a legislative requirement that medicine records are kept for 3 years.

**At least five years:**

- In the case of medicines with withdrawal periods



- g) The owner or agent must notify the OV of any variation in hatchability or any other sign or laboratory result suggesting the presence of Newcastle disease, avian influenza, the specified *Salmonella* or *Mycoplasma* species. Any person suspecting the presence of disease must notify APHA immediately so a veterinary enquiry can be made by a VO. If verification samples are required by APHA, samples for diagnosis must be submitted without delay to the appropriate APHA laboratory.

## 6. Personnel at PHS approved Hatcheries

Any personnel must possess the appropriate ability and knowledge, either via specific training, or through equivalent practical experience in the disinfection and hygiene techniques needed to prevent the spread of infectious poultry diseases.

## 7. Veterinary Medicines

[The Veterinary Medicine Regulations 2013](#) require the following to be kept by farmers:

- a) The owner or keeper of food-producing animals must keep the documentation relating to the acquisition of all veterinary medicinal products acquired for those animals for five years.
- b) When a veterinary medicinal product is bought or otherwise acquired for a food-producing animal the keeper must, at the time, record:
- the name of the product and the batch number
  - the date of acquisition
  - the quantity acquired
  - the name and address of the supplier.
- c) At the time of administration, the keeper must record:
- the name of the product
  - the date of administration
  - the quantity administered
  - the withdrawal period
  - the identity of the animal(s) treated, e.g. flock code/ID.

- d) If a veterinary surgeon administers a veterinary medicinal product they must record the above information relating to administration, the batch number and their name in the keeper's records, or provide this information to the keeper in writing and the keeper must then enter it in their records.
- e) If the keeper disposes of a veterinary medicine other than by treating an animal, they must record:
- the date of disposal
  - the quantity of product involved
  - how and where they disposed of it.

**The medicine records described above must be kept for five years. These records can be kept either on paper or as a computerised record. There is no specific format required. If only an electronic copy of medicine records are kept, the keeper must supply a printed copy if requested by an inspector.**

## 8. Vaccinations

Any vaccines used in the flock of origin must have a marketing authorisation issued by the Veterinary Medicines Directorate (VMD). The use of vaccines imported under a VMD issued Special Import Certificate (SIC) or, of autogenous vaccines manufactured and used with the approval of VMD, can be considered to have the equivalent of a marketing authorisation in the UK. Records must be maintained of all medicine usage, including vaccines, and must be available for inspection.

### **Vaccination for *Salmonella* serotypes**

- a) *Salmonella* vaccination programmes must not interfere with serological detection in the context of field investigation, or result in false-positive tests;
- b) Live *Salmonella* vaccines must not be used in the framework of national control programmes:
- In breeding or productive poultry during their reproductive or laying stage unless the safety of their use has been demonstrated and they are authorised for such purpose
  - Where the manufacturer does not provide an appropriate method to distinguish bacteriologically wild- type strains of *Salmonella* from vaccine strains.

Further information on veterinary medicines can be found at the [Veterinary Medicines Directorate](#) page.

## 9. Compliance with other legislation

Membership the PHS does not exempt a member from any requirements to comply with other European Directives/Regulations or with other UK legislation governing the production and marketing of poultry and poultry products.

## 10. Export certification by Official Veterinarians

- a) Any information shared with a members' private veterinarian must be treated as "Commercial-in-Confidence" by all parties involved.
- b) Private certification of poultry export consignments may only be carried out by an OV approved and appointed by APHA for export poultry work.
- c) Members must make their own arrangements for all laboratory samples and tests required under the PHS, and for veterinary inspections, tests etc. required for trade.
- d) Advice on sampling in case of a relevant *Salmonella* disease breakdown can be obtained from the APHA *Salmonella* disease consultant.
- e) The costs of laboratory tests, export health checks, certification requirements etc. are a matter for the PHS member.
- f) Export certification usually requires a health examination of the birds for export and/or flocks of origin by an OV within a particular timeframe prior to export. In some cases, this requirement for the flocks may be waived if allowed by the receiving country as an option (assessment of production records and health status of the flock still needed) provided the establishment is subject to routine monthly health inspections by an OV. It is at the member's discretion to arrange and pay for these routine inspections. Appropriate records of such inspections should be held at the establishment.
- g) PHS membership includes an authorisation under the Data Protection Act for release of information to all those affected by the establishment's health status.

# Annex I - Poultry Health Scheme (PHS) Testing Schedules

## 1. Microbiological quality control programme (hatcheries only)

A microbiological quality control programme for purpose of hygienic controls must be laid down in writing and agreed with the inspecting OV/VO and shall include the following:

- a) environmental samples must be collected from the hatchery and undergo a bacteriological examination. Swab samples to conduct aerobic plate counts (or similar tests) would be acceptable for this purpose.
- b) Samples must be taken at least every six weeks and each sampling must include a minimum of 60 samples. For smaller hatcheries, cumulative sampling over the 6-week period to a total of at least 60 samples are acceptable.

## 2. Testing schedule for *Salmonella* *Pullorum/Gallinarum*

Relevant species: fowl, turkeys, ducks, guinea fowl, partridges, pheasant, quails.

### 2.1 *Salmonella Pullorum/Gallinarum* surveillance requirements on the farm

Each flock must be **clinically examined and tested** at least once during each laying or productive period at the best time for detecting the disease in question.

#### **Sampling matrix options:**

Samples must be taken from each flock in the establishment keeping poultry, as appropriate:

- for serological testing: blood samples taken at or near point of lay taken at the rate shown in the sampling table;
- for bacteriological testing:
  - post-mortem tissues, especially liver, spleen, ovary, oviduct and ileo-caecal junction, in particular from those birds that appear sick or that have been identified as highly seropositive;
  - environmental samples (pooled caecal/faecal dropping samples). These can be tested in pools of up to 10 individual droppings.

The disease surveillance programme shall be integrated between farm and hatchery.

The operator of the establishment (farm) must ensure that arrangements are in place with the operator of the hatchery where the hatching eggs are destined for sampling to be carried in the hatchery for testing.

Serology is the preferred test for on-farm surveillance of *S. Pullorum* and *S. Gallinarum*, but if there are circumstances which interfere with the validity of serological tests, bacteriology may be used.

**For newly approved flocks** carrying out their initial testing during the 6-week initial period following introduction of the birds, resident flocks must be tested twice for the relevant pathogens, as applicable. The interval between tests must be between 14 and 42 days. Serological testing is preferred.

- Blood samples for serological testing,

or

- Cull chicks following placement on farm (all available up to a maximum of 60) **and**

Faecal pick samples taken 4 weeks before any movement of birds/eggs off the premises (see sampling table below for the number of faeces picks required)

**Samples for bacteriological testing must not be taken from poultry or eggs that have been treated with antimicrobial medicinal products during the period of three weeks prior to testing.**

## **2.2 *Salmonella Pullorum/Gallinarum* surveillance requirements in the hatchery**

Samples shall be collected and examined at least once every 6 weeks. The testing shall include at least:

- one pooled sample of meconium and down from chicks from each hatcher used to hatch eggs for export;

and

- a sample of:
  - either 10 second grade chickens and 10 dead-in-shell chickens representing every flock of origin present in a hatcher on the day of sample collection;
  - or
  - 20 second grade chickens representing every flock of origin present in a hatcher on the day of sample collection.

### 3. Processing of samples and testing methods

Samples collected must be subject to:

either

- i. serological testing in the case of birds sampled on farm;
- or
- ii. (ii) bacteriological testing either as an alternative or in addition to serological testing referred to in point (i); however, samples for bacteriological testing must not be taken from poultry or eggs that have been treated with antimicrobial medicinal products during the two to three weeks prior to testing.

Serological testing techniques must be capable of differentiating serological responses to *S. Pullorum* and *S. Gallinarum* infection from serological responses due to the use of *Salmonella enteritidis* vaccine, where this vaccine is used. Such vaccination must therefore be avoided if serological monitoring is to be used. In case vaccination is used, testing shall be done using bacteriological methods. The confirmation method used must be capable of differentiating live vaccinal strains from field strains.

Samples collected for bacteriological testing must be processed as follows:

- i. direct enrichment in Selenite-cysteine broth for faecal/meconium and intestinal samples or other appropriate media suitable for direct enrichment of samples where competing flora is expected, followed by plating on a suitable plating agar, such as Brilliant Green Agar (BGA);

Other alternative methods are permitted, but are less suitable for PHS-relevant salmonellae e.g.:

- ii. non-selective pre-enrichment followed by selective enrichment in soya-based Rappaport-Vassiliadis (RVS) broth or Müller- Kauffmann Tetrathionate-Novobiocin broth (MKTTn) for samples (such as embryos dead-in-shell) where competing flora is expected to be minimal;
- iii. direct plating of aseptically collected diseased tissues from infected birds on to a minimally selective agar, such as MacConkey agar;
- iv. Importantly, *S. Pullorum* and *S. Gallinarum* do not readily grow in the modified semi-solid Rappaport Vassiliadis (MSRV) medium that is used for monitoring of zoonotic *Salmonella* spp. in the *Salmonella* National Control Programme, so this must not be used to detect these organisms (but MSRV is suitable for the detection of *Salmonella arizonae*, see below).

## 4. Interpretation of results

A flock is considered positive when, following the positive results of the routine testing performed in accordance with the above, a second test of an appropriate type confirms the infection by the disease agents.

## 5. General testing requirements

All testing required for membership of the PHS must be carried out at laboratories designated by the competent authority to undertake diagnostic testing for the purpose of the PHS (laboratory designations are on a pathogen- and test-specific basis).

A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at [PHS Laboratories](#).

The PHS member must pay the cost of all sampling and testing associated with the PHS.

Samples need to be submitted either for serological or bacteriology testing, or for hatchery hygiene control as above.

## 6. Testing schedule for *Salmonella arizonae*

### 6.1 Routine surveillance on farm

- Relevant species: turkeys only.
- Frequency/timing: Each flock must be tested at least once a year during the production period – the initial testing being at or near the point of lay.
- Samples: bacteriology only. There are no suitable serological tests. Boot swabs taken and tested for the *Salmonella* National Control Plan (NCP) are suitable for detection of the target *S. arizonae* strain.
- All samples must be tested in a laboratory officially designated by the competent for the purpose of *S. arizonae* testing for the PHS. A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at [PHS Laboratories](#).

### 6.2 Surveillance at the hatchery

Samples shall be collected and examined at least once every 6 weeks in the hatchery. The testing shall include at least:

- one pooled sample of meconium and down from chicks from each hatcher used to hatch eggs for export;

**and** a sample of:

- either 10 second grade chicks and 10 dead-in-shell chicks representing every flock of origin present in a hatcher on the day of sample collection,

**or**

20 second grade chicks representing every flock of origin present in a hatcher on the day of sample collection.

### 6.3 Test types available

Test type	Additional information
<b>Serology</b>	<ul style="list-style-type: none"><li>• No test available</li></ul>
<b>Bacteriology</b>	<ul style="list-style-type: none"><li>• Culture</li><li>• BPW-MSRV-based (as used for NCP) test is suitable for <i>arizonae</i>, BPW – RVS enrichment or direct Selenite enrichment methods can also be used.</li></ul>
<b>Molecular tests</b>	<ul style="list-style-type: none"><li>• Acceptability to be determined – no suitable validated test currently.</li></ul>



## 7. Testing schedule for *Mycoplasma gallisepticum*

### 7.1 Routine monitoring

- Relevant species: fowl, turkeys
- Frequency/timing:
  - fowl at 16 weeks of age, at point of lay and then every 12 weeks thereafter during lay.
  - turkeys at 20 weeks of age, at point of lay and then every 12 weeks thereafter during lay.
- Samples: either bacteriology and/or serology and/or molecular testing
- All samples must be tested in a laboratory officially designated by the competent for the purpose of *M. gallisepticum* testing for the PHS. A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at [PHS Laboratories](#).
- Statistical sampling of each flock, as per table in Section 3.
- Birds should be sampled at random from each part of the flock.
- Surveillance for clinical signs and lesions of *Mycoplasma* infection must be ongoing.

### 7.2 Samples for testing (both for routine monitoring and following suspicion of disease)

As appropriate –

Serum

- Day old bird – air sac swabs from culls
- Tracheal, choanal, or air sacs swabs
- On suspicion of infection, samples should be taken to confirm disease as follows:
  - from flocks, samples as above according to section 3
  - from day old chicks or poults
  - for examination for airsacculitis
  - samples from carcasses according to veterinary advice and/or discussion of sampling options with APHA

### 7.3 Sample numbers: Statistical sampling

For the purposes of the PHS, a 'flock' is defined as meaning all poultry of the same health status kept on the same premises or in the same enclosure and constituting a single epidemiological unit. In housed poultry this will include all birds sharing the same airspace.

<b>Flock size</b>	<b>Number of samples required to provide 95% confidence of detecting 5% within-flock prevalence</b>
<b>1-20</b>	All birds
<b>20-29</b>	20
<b>30-39</b>	25
<b>40-49</b>	30
<b>50-59</b>	35
<b>60-89</b>	40
<b>90-100</b>	50
<b>200-499</b>	55
<b>500+</b>	60

## 7.4 Test types available

Test type	Additional information
<b>Serology</b> <b>(monitoring only)</b>	Rapid Serum Agglutination test Western blot ELISA Haemagglutination inhibition
<b>Bacteriology (for monitoring purposes)</b>	Swabs from live birds or carcasses; suitable types to include swabs taken from the trachea, the choanae or the cloaca
<b>Bacteriology (for confirmatory purposes)</b>	Swabs from live birds or swabs or tissues from carcasses, especially air sacs from day-old chicks with lesions
<b>Molecular tests</b> <b>(monitoring and confirmation)</b>	Swabs from live birds or swabs/ tissues from carcasses, especially air sacs from day-old chicks with lesions

Serological, bacteriological and molecular tests must be carried out using recognised validated methods.

All testing required for membership of the PHS must be carried out at laboratories designated by the competent authority to undertake diagnostic testing for the purpose of the PHS (laboratory designations are on a pathogen- and test-specific basis).

A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at [PHS Laboratories](#).

The PHS member must pay the cost of all sampling and testing associated with the PHS.

## 8. Testing schedule for *Mycoplasma meleagridis*

### 8.1 Routine monitoring

- Relevant species: turkeys
- Frequency/timing: 20 weeks of age, at point of lay and then every 12 weeks thereafter during lay.
- Samples: either bacteriology and/or serology and/or molecular testing
- All samples must be tested in a laboratory officially designated by the competent for the purpose of *M. meleagridis* testing for the PHS. A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at [PHS Laboratories](#).
- Statistical sampling of each flock, as per table in 7.3 above.
- Birds should be sampled at random from each part of the flock.
- Surveillance for clinical signs and lesions of *Mycoplasma* infection must be ongoing.

### 8.2 Samples for testing (both for routine monitoring and following suspicion of disease)

As appropriate –

- Serum
- Day old poults - air sac swabs from culls
- Tracheal, choanal, cloacal or air sacs swabs and swabs from reproductive tract (including oviduct, penis and semen of adult birds, as appropriate).
- On suspicion of infection, samples should be taken to confirm disease as follows:
  - from flocks, samples as above according to section 3
  - from day old poults for examination for airsacculitis
  - samples from carcasses according to veterinary advice and/or discussion of sampling options with APHA

# Annex II – Number of samples: Statistical sampling

For the purposes of the PHS, a 'flock' is defined as meaning all poultry of the same health status kept on the same premises or in the same enclosure and constituting a single epidemiological unit. In housed poultry this will include all birds sharing the same airspace.

<b>Flock size</b>	<b>Number of samples required to provide 95% confidence of detecting 5% within-flock prevalence</b>
<b>1-20</b>	All birds
<b>20-29</b>	20
<b>30-39</b>	25
<b>40-49</b>	30
<b>50-59</b>	35
<b>60-89</b>	40
<b>90-100</b>	50
<b>200-499</b>	55
<b>500+</b>	60

## Test types available

Test type	Additional information
<b>Serology</b> <b>(monitoring only)</b>	Rapid Serum Agglutination Test Tube Agglutination Test Other tests as developed e.g. ELISA, following validation as fit for purpose according to relevant ISO standards
<b>Bacteriology</b> <b>(monitoring and confirmation)</b>	Culture using direct enrichment using Selenite broth/ Brilliant Green Agar test is suitable for all samples BPW/RVS/BGA test suitable for non-faecally contaminated samples (for example dead-in shells and cull chicks). BPW-MSRV-based tests (as used for the National Control Program (NCP)) are <u>not</u> suitable for <i>S. Pullorum</i> or <i>S. Gallinarum</i> but will detect the turkey pathogenic O18 <i>arizonae</i> strain.
<b>Molecular tests</b>	Other tests as developed e.g. PCR, following validation and demonstration as fit for purpose according to relevant ISO 16140 series standards

Serological, bacteriological and molecular tests must be carried out using recognised validated methods.

All testing required for membership of the PHS must be carried out at laboratories designated by the competent authority to undertake diagnostic testing for the purpose of the PHS (laboratory designations are on a pathogen- and test-specific basis).

A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at [PHS Laboratories](#).

## Annex III – Definitions/Glossary

Definitions/Glossary of terms - For the purpose of the PHS	
<b>APHA</b>	Means the Animal and Plant Health Agency, the executive agency of Defra providing delivery of field services and laboratory functions
<b>Breeding establishment</b>	Premises producing hatching eggs for the production of breeding or productive poultry
<b>Department</b>	in England, the Department for Environment, Food and Rural Affairs (Defra) in Scotland, the Scottish Government in Wales, the Welsh Government
<b>Depopulation</b>	means the destruction, subject to all the necessary health safeguards including disinfection, of all poultry and products at the outbreak site which are infected or suspected of being contaminated
<b>Establishment</b>	a facility or part of a facility which occupies a single site and is devoted to one or more of the following activities: (a) breeding establishment (b) rearing establishment (c) hatchery
<b>Flock</b>	all poultry of the same health status kept on the same establishment or in the same enclosure and constituting a single epidemiological unit. In housed poultry this will include all birds sharing the same airspace
<b>Fowl</b>	Birds of the species <i>Gallus gallus</i>
<b>Hatchery</b>	an establishment which incubates and hatches eggs and supplies day-old chicks
<b>Membership fee</b>	The fee payable for annual membership to the PHS
<b>NIPHAS</b>	Northern Ireland Poultry Health Assurance Scheme
<b>OV</b>	Official Veterinarian, a private veterinary surgeon to whom the Department has delegated authority to inspect PHS premises and to carry out export health certification.
<b>Poultry</b>	as defined in Article 4 of Regulation 2016/429: “birds that are reared or kept in captivity for the production of (a) meat; (i) eggs for consumption; (ii) other products; (b) restocking supplies of game birds; (c) the purpose of breeding of birds used for the types of production referred to in points (a) and (b).”

<b>PHS</b>	Poultry Health Scheme
<b>Ratites</b>	includes ostriches, emus, rheas, cassowaries, kiwis and tinamous.
<b>Rearing establishment</b>	(a) either a breeding poultry establishment rearing breeding poultry prior to the reproductive stage; or (b) a productive poultry rearing establishment rearing egg-laying productive poultry prior to the laying stage
<b>Registration fee</b>	a fee payable to APHA when first joining the PHS or when re-joining after membership has been revoked
<b>S. Gallinarum</b>	<i>Salmonella enterica</i> , subspecies <i>enterica</i> , serovar Gallinarum biovar Gallinarum
<b>S. Pullorum</b>	<i>Salmonella enterica</i> , subspecies <i>enterica</i> , serovar Gallinarum biovar Pullorum
<b>S. arizonae</b>	<i>Salmonella enterica</i> subspecies <i>arizonae</i> , serovar 18:z4, z32 (O18 Pathogenic arizonae serovar of turkeys)



## Annex IV - Useful Links and contacts

Legislation	
<b>Regulation 798/2008</b>	The Regulation <a href="#">798/2008</a> is retained in the UK following exit from the European Union for import purposes [SI 2020/1462 Part 3 Regulation 53]
<b>Commission Delegated Regulation (EU) 2019/2035</b>	<a href="#">Regulation (EU) 2019/2035</a>
<b>Veterinary Medicine Regulations</b>	<a href="#">The Veterinary Medicine Regulations 2013</a>
Organisations and Schemes	
<b>APHA PHS contacts in GB</b>	Telephone 03000 200 301 or email <a href="mailto:CSCOneHealthGeneral@apha.gov.uk">CSCOneHealthGeneral@apha.gov.uk</a>
<b>APHA Specialist Service Centre Carlisle, International Trade</b>	<b>APHA Centre for International Trade: Carlisle</b> General enquiries email: <a href="mailto:SSC.Carlisle@apha.gov.uk">SSC.Carlisle@apha.gov.uk</a> Telephone: 03000 200 301 Fax: 0208 0260 498 <a href="#">Contact list for Centre for International Trade, Carlisle</a> (PDF, 71.1KB, 2 pages) Centre for International Trade: Carlisle Eden Bridge House Lowther Street Carlisle CA3 8DX
<b>British Egg Industry Council (BEIC)</b>	<a href="#">British Egg Industry Council (BEIC)</a>
<b>British Poultry Council (BPC)</b>	<a href="#">British Poultry Council (BPC)</a>
<b>British Veterinary Poultry Association</b>	<a href="#">British Veterinary Poultry Association</a>
<b>Defra Approved Disinfectants</b>	<a href="#">Disinfectants approved for use in England, Scotland and Wales</a>
<b>‘Form Finder’ page containing Export Health Certificates and associated documents</b>	<a href="https://www.gov.uk/export-health-certificates">https://www.gov.uk/export-health-certificates</a>
<b>GB Import Health Certificates</b>	<a href="https://www.gov.uk/government/collections/health-certificates-for-animal-and-animal-product-imports-to-great-britain#equines">https://www.gov.uk/government/collections/health-certificates-for-animal-and-animal-product-imports-to-great-britain#equines</a>

<b>Salmonella NCP</b>	Salmonella National Control Programme <a href="#">Laying Hens and Flocks</a> , <a href="#">Broiler Flock Chickens</a> <a href="#">Chicken Breeders</a> <a href="#">Turkey Breeders</a> <a href="#">Fattening Turkeys</a>
<b>Northern Ireland Poultry Health Assurance Scheme (NIPHAS)</b>	<a href="#">NIPHAS</a>
<b>PHS Laboratories</b>	Laboratory designated by the competent authority to carry out diagnostic testing for the purpose of the PHS (laboratory designations are on a pathogen- and test-specific basis).  A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at <a href="#">PHS Laboratories</a> .
<b>UK Accreditation Service (UKAS)</b>	<a href="#">UKAS</a>
<b>Veterinary Medicine Directorate (VMD)</b>	<a href="#">Veterinary Medicines Directorate</a>
<b>World Health Organisation for Animal Health (OIE)</b>	<a href="#">OIE</a>

## Annex V – Testing scenarios for *Salmonella Pullorum* / *Salmonella Gallinarum*

All testing required for membership of the PHS must be carried out at laboratories designated by the competent authority to undertake diagnostic testing for the purpose of the PHS (laboratory designations are on a pathogen- and test-specific basis). A list of laboratories currently permitted to undertake diagnostic testing for the purpose of the PHS can be found on GOV.UK at [PHS Laboratories](#).

SCENARIO	Testing Requirements - <i>Salmonella</i>	Pathogens to test for	Sample types (preferred type in bold)	Test method
1. <b>Newly approved premises with resident flocks at the time of approval,</b>	Resident flocks must be tested twice for the relevant pathogens, as applicable, during the 6-week PHS introductory period. The interval between tests must be between 14 and 42 days.	<i>S. Gallinarum</i> / <i>Pullorum</i> (all relevant breeding flock species)	<b>Blood samples</b> (60/flock), <b>or</b> 60 caecal/faecal droppings (tested in pools of ten)	RSA; positives checked with SAT  Selenite/BGA culture
		<i>S. arizonae</i> (O18) ( <b>turkeys only</b> )	5 pairs of boot swabs as for <i>Salmonella</i> NCP <b>or</b> 60 caecal/faecal droppings (tested in pools of ten)	BPW/MSRV/XLD& second medium with different biochemical indicator Selenite/BGA culture

<p><b>2. For premises that are inspected and approved whilst no birds are present, the 6 weeks introductory period starts at the time of population of the premises.</b></p>	<p>If the birds originate from premises/flocks that have been members of the PHS for at least 6 weeks, no initial testing of the birds is required during the 6-week introductory period. In any other case, the testing must be carried out according to requirements for premises with resident flocks, at 1. above</p>	<p>As 1. above for relevant species</p>	<p>As 1. above for relevant species</p>	<p>As 1. above for relevant species</p>
--	---	---	---	---

3.	<b>Annual flock testing</b>	Relevant species: fowl, turkeys, ducks, guinea fowl, partridges, pheasant, quails. Frequency/timing: each <u>flock</u> must be tested at least once each year during the production period – the initial test being at or near the point of lay. Serology is the preferred test at farm level, but if there are circumstances which interfere with the validity of serological tests, bacteriology may be used.	<i>S. Gallinarum/Pullorum</i>	<b>Blood samples</b> (60/flock), <b>or</b> 60 caecal/faecal droppings (tested in pools of ten)  [for confirmation of infection – PM culture of ileo-caecal junction, liver and ovary/oviduct from sick or sero-reactor birds]	RSA; positives checked with SAT  Selenite/BGA culture
4.	<b>Annual flock testing</b>	Relevant species: turkeys	<i>S. arizonae</i> (O18) <b>(turkeys only)</b>	5 pairs of boot swabs as for <i>Salmonella</i> NCP  <b>or</b>  60 caecal/faecal droppings (tested in pools of ten)	BPW/MSRV/XLD& second medium with different biochemical indicator  Selenite/BGA culture

5.	<b>Hatchery Salmonella surveillance sampling</b>	Samples collected and examined <b>at least once every 6 weeks</b> in the hatchery.	S. Gallinarum/Pullorum  <i>S. arizonae</i> (O18) <b>(turkeys only)</b>	The testing shall include at least: (i) one pooled sample of meconium and down from chicks from <b>each hatcher</b> used to hatch eggs for export; <b>and</b> (ii) a sample of either: <ul style="list-style-type: none"> <li>• second grade chicks and 10 dead-in-shell chicks representing every flock of origin present in a hatcher on the day of sample collection,</li> </ul> or <ul style="list-style-type: none"> <li>• 20 second grade chicks representing every flock of origin present in a hatcher on the day of sample collection.</li> </ul>	Selenite/BGA culture for <i>S. Gallinarum/Pullorum</i>  Selenite/BGA culture <b>or</b> BPW/MSRV/XLD& second medium with different biochemical indicator for <i>S. arizonae</i> only
----	--	--	---	---	---

6.	<b>Hatchery Hygiene monitoring</b>	Samples collected and examined <b>at least once every 6 weeks</b> in the hatchery.	Environmental bacteria levels	<ul style="list-style-type: none"> <li>• Environmental samples must be collected and undergo a bacteriological examination to demonstrate a suitable standard of hatchery hygiene.</li> <li>• Samples must be taken <b>at least every six weeks</b> and <b>each sampling must include a minimum of 60 samples</b>.</li> <li>• For smaller hatcheries, cumulative sampling over the 6-week period to a total of at least 60 samples would be acceptable.</li> </ul>	Swab samples to conduct aerobic plate counts (or similar tests) after cleaning and disinfection would be acceptable for this purpose.
----	------------------------------------	--	-------------------------------	--	---