IFM
QUALITY SERVICES

MICROBIOLOGICAL PROFICIENCY TESTING CATALOGUE

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ACCREDITED

CONTENTS

About Us

IFM is a global provider of microbiological proficiency testing services and reference materials to commercial testing facilities and laboratories. IFM has been operating for over 30 years.

IFM maintains 3 key accreditations with the American Association for Laboratory Accreditation (A2LA).

- ISO/IEC 17025 (Certificate 3189-01) Biological testing
- ISO/IEC 17043 (Certificate 3189-02) Proficiency Testing Provider
- ISO 17034 (Certificate 3189-03) Reference Material Producer

The combination of these accreditations means that IFM understands the quality requirements which must be met by testing laboratories. Subsequently, IFM can design and offer the best possible Proficiency Testing Programs (PTP) and Reference Materials (RM).

The scope of our accreditations extends (but is not limited) to food, water, swabs, pharmaceutical, environmental and veterinary identification tests.

Benefits of Proficiency Testing

ACCURACY **CONSISTENCY** **QUALITY** **RELIABILITY** **COMPLIANCE**

Proficiency testing is a quality assurance tool used by industries and professions where consistency, accuracy, reliability, and adherence to standards are critical. As a requirement of ISO/IEC 17025, proficiency testing plays a crucial role in maintaining quality and ensuring both individuals and organisations meet established benchmarks.

Regular participation in proficiency testing fosters continuous improvement and helps individuals and entities stay updated with industry requirements and can assist with new method validation, contributing to ongoing professional development and quality enhancement.

Visit our website for more information
IFM Proficiency Programs

Why Choose IFM?

- Real and simulated materials reflect routine test samples.
- Wide scope of PT programs and tests offered, and multiple rounds per year for many programs.
- Assessments provided for multiple participants, methods, or equipment.
- All advertised tests are available for every sample received.
- Sample sizes are sufficient for multiple tests.
- Result entry online portal for unlimited participants at no additional cost.
- Prompt and friendly support.
- International distribution.
- Participant results and final comparative reports issued within approximately 1-2 weeks.
- Clear evaluation criteria for assessments.
- Repeat samples are generally available for one month after the program report is issued.
- PTP participation certificates and performance reports available.

PTP Schedule

To help laboratories plan their annual participation, please refer to the **IFM Microbiological Perpetual Schedule.**

This schedule includes available tests/organisms, general sample preparation/format information and program dates including deadlines for enrolment, sample dispatch, and result due dates. The schedule can be sorted by year to facilitate forward planning.

PT Programs

Food Programs and Specialist Food Matrices

IFM Food Microbiology Programs provide comprehensive ('real') samples that reflect daily testing experiences faced by laboratories. Each round provides varying biological content and organism levels, ensuring participants encounter broad challenges for targets and methods based on varied food chemistry.

Each sample within a round may have multi-organism combinations to challenge method selectivity. Both positive and negative samples may be received for each advertised test.

IFM's samples are **real food, real challenges, real proficiency.**

Participants can treat IFM samples like normal customer samples received by the laboratory for testing. All advertised tests are available for every sample received.

Food Pathogens (FP)

Frequency /Format

Four FP PTP rounds are offered each year, with samples designed to simulate (FP1) breakfast foods, (FP2) desserts, (FP3) starches, and (FP4) traditional/festive foods.

Three 130 g samples are provided each round packaged in foil sachets.

Available Tests

Food Pathogen Program (FP1, FP2, FP3, and FP4)	
Count (cfu/g):	**Detection (per 25 g):**
Clostridium perfringens	*E. coli* O157
Clostridium spp.	*Listeria monocytogenes*
Coagulase positive *Staphylococcus* spp.	*Listeria* spp.
Enterococcus spp.	*Salmonella* spp.
Listeria monocytogenes	

Non-Pathogens (NP)

Frequency /Format

Four NP PTP rounds are offered each year, with samples designed to simulate (NP1) beverage ingredients, (NP2) soups, (NP3) infant formula, and (NP4) traditional/festive foods.

Three 25 g samples are provided each round packaged in foil sachets.

Available Tests

Food Non-Pathogen Program (NP1, NP2, NP3, and NP4)	
Count (cfu/g):	
Plate count	Mould
Anaerobic count	Coliforms
Bacillus cereus	Thermotolerant (faecal) Coliforms
E. coli	Yeast
Enterobacteriaceae	*Pseudomonas* spp.
Lactic acid bacteria	

Chocolate (CH)

The microbiological testing of chocolate confectionary products presents a challenging food matrix to the microbiology laboratory, as chocolate has a relatively high sugar and fat content with low water activity. IFM provides laboratories with a real chocolate block for testing, containing common pathogenic and spoilage organisms.

Frequency /Format

Three 40 g chocolate samples are provided in plastic sachets. The program is conducted annually. No special sample preparation steps are required.

Available Tests

Chocolate Program (CH1)	
Count (cfu/g):	**Detection:**
Plate Count	*E. coli* (per 0.1 g)
Coliforms	*Salmonella* spp. (per 25 g)
Enterobacteriaceae	
Mould	
Yeast	

Meat (MM)

Monitoring the production, processing, and distribution of meat products is essential to public health and safety. MM1 PTP focuses on some of the common pathogens found in meat products that may be introduced at any stage of this chain. MM2 PTP also focuses on common pathogens and spoilage organisms.

Frequency /Format

There are two rounds offered per year, covering different organisms/ tests. Each round includes two samples. Samples consist of a freeze-dried vial and real mince in plastic sachets.

Instructions are provided to participants for minor rehydration before combining the matching meat and vial prior to testing.

Available Tests

Meat programs	
MM1	**MM2**
Count (cfu/g):	**Count (cfu/g):**
Plate count	Psychrotrophic bacteria
E. coli	Yeast
Coagulase positive *Staphylococcus* spp.	Mould
Lactic acid bacteria	*Pseudomonas aeruginosa*
Enterobacteriaceae	
Detection (per 25 g):	**Detection (per 25 g):**
Salmonella spp.	*Listeria monocytogenes*

Seafood (SF)

Like other food products, seafood must also be monitored for spoilage and as sources of infection. IFM offers two PT programs covering different tests and targets for seafood testing. SF1 focuses on some of the common pathogens found in seafood products and SF2 focuses on several of the tests performed to identify presence of spoilage organisms.

Frequency /Format

There are two rounds available covering different organisms/tests. Each round includes two samples. Samples consist of a freeze-dried vial and real seafood in plastic sachets.

Instructions are provided to participants for minor rehydration before combining the matching seafood and vial prior to testing.

Available Tests

Seafood Programs	
SF1	**SF2**
Detection:	**Count (cfu/g):**
E. coli (per 0.1 g)	Plate count/total bacteria
Vibrio cholerae (per 25 g)	Coliforms
Vibrio parahaemolyticus (per 25 g)	*E. coli*
	Coagulase positive *Staphylococcus* spp.
	Anaerobic sulfite reducing bacteria
	H2S producing bacteria

Extension Food Programs

IFM extension programs are for laboratories that have a wider scope of methods or wish to test their skills beyond regular IFM food programs. All the organisms present in these programs have been responsible for major food poisoning outbreaks and remain potential reservoirs for disease.

Extension Pathogens (XP)

Frequency /Format

There are two rounds offered per year (XP1 and XP2). Each round includes three samples in freeze-dried vial format. Both rounds cover the same organisms/tests and offer identification to species level of detected targets.

Each vial is reconstituted to obtain 160 ml sample for testing.

Available Tests

Extension Pathogen Programs (XP1 and XP2)	
Detection (per 25 g)	**Count (cfu/g):**
Campylobacter spp.	*Vibrio parahaemolyticus*
Salmonella spp.	*Campylobacter* spp.
Vibrio cholerae	
Vibrio parahaemolyticus	
Vibrio spp.	
Yersinia spp.	
Yersinia enterocolitica	
Identification to species level of detected targets.	

Extension Non-Pathogens (XN)

Frequency /Format

The program consists of three milk powder 25 g samples, packaged in foil sachets. One round is provided annually.

Available Tests

Extension Non-Pathogen Program (XN1)	
Count (cfu/g):	**Detection (per 10 g)**
Enterobacteriaceae	*Cronobacter* spp.
Aerobic Mesophilic and Thermophilic spores	
Anaerobic Mesophilic and Thermophilic spores	
Anaerobic plate count	

Water Programs

Access to safe drinking water is a fundamental requirement for every person on the planet. Disease can result via infection from contaminated water sources which must be monitored carefully for the health and hygiene of all communities.

Check Sample Program (CSP)

Potable Water and Beverages

The IFM Check Sample Program (CSP) is a well-established program that has been operating for over 15 years.

Frequency /Format

12 x freeze-dried vials are provided per year, sent in 2 consignments (CSP-01 and CSP-02), each containing 6 consecutive rounds. All tests are available each month.

One vial is tested each month and reconstituted to obtain 1000 ml (1 L).

The volume of sample once reconstituted for testing can be used to monitor proficiency of multiple (up to 10) analysts as well as verification of different methods conducted by the laboratory.

Available Tests

Check Sample Program (CSP-01 and CSP-02)	
Count (cfu/ml)	**Count (cfu/ 100 ml continued)**
Plate count 37°C	*Clostridium* spp. (vegetative)
Plate count 21°C	*Enterococcus* spp.
Count (cfu/100 ml)	Thermotolerant (faecal) Coliforms
Coliforms	*Pseudomonas aeruginosa*
E. coli	*Pseudomonas* spp.
Yeast	Faecal *Streptococcus* spp.
Mould	Coagulase positive *Staphylococcus* spp.

Note: IFM also offers one CSPm program annually, consisting of two freeze-dried vials. The advertised tests for CSP above are provided and the vials are reconstituted to obtain 1000 ml (1 L). This program is designed for laboratories that mainly conduct meat (or carcass) testing and perform minimal water testing within their scope.

Environmental Water (EW)

Water is a natural resource with a multitude of uses from public recreation to industry. These uses and the environments they impact must be carefully monitored, not only for human health, but the health of the greater environment.

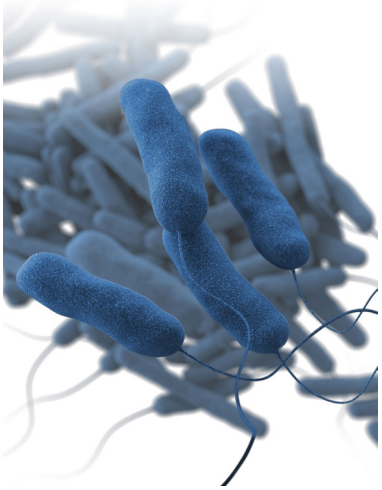
Frequency /Format

The EW program consists of 8 freeze-dried vials per year, sent in 2 consignments (EW-01 and EW-02). Each program has two rounds, which consist of two vials that are reconstituted to obtain 800 ml.

Available Tests

Environmental Water Program (EW-01 and EW-02)	
Count (cfu/ml)	**Count (cfu/100 ml continued)**
Plate count 37°C	*Enterococcus* spp.
Plate count 21°C	Yeast
Count (cfu/100 ml)	Mould
Coliforms	Thermotolerant (faecal) Coliforms
E. coli	*Pseudomonas aeruginosa*

Legionella (LG and LGs)



Cooling towers associated with large scale air conditioning are well recognised as a potential reservoir for *Legionella* species. The water from these systems is usually monitored at regular intervals to ensure the microorganism levels are acceptable.

Frequency /Format

IFM's *Legionella* PTP is offered three times per year (LG1, LG2 and LG3).

Each round includes three samples in freeze-dried vial format. Each vial is reconstituted to obtain either 100 ml or 1000 ml (1 L) sample for testing.

Available Tests

***Legionella* Programs (LG1, LG2 and LG3)**	
Count (cfu/ml)	
Plate count 37°C	*Legionella* spp.
Plate count 21°C	Total *Legionella pneumophila*
Legionella pneumophila SG1	Total *Legionella*
Legionella pneumophila SG2-14	

IFM also offers one annual *Legionella* filtration program (LG2s). This supplementary round is specifically for laboratories using methods of concentration by membrane filtration.

Three freeze-dried vials are provided for testing. Each vial is reconstituted to obtain 2500 ml (2.5 L) of sample for testing.

Available Tests

***Legionella* Filtration (LG2s)**
Count (cfu/1000 ml or 1 L)
Legionella pneumophila
Legionella spp.
Total *Legionella*
Identification to species and serogroup level of detected targets.

Meat Industry Scheme (MIS)
Carcass Hygiene

Many regulatory bodies require Hazard Analysis Critical Control Point (HACCP) programs for assessment of safe meat handling practices. Carcasses are swabbed to monitor the general hygiene of food processing operations, as well as to verify that HACCP protocols are effective.

IFM Meat Industry Scheme (MIS) is a well-established program that has been operating for over 15 years.

Frequency /Format

12 freeze-dried vials are provided per year, sent in 2 consignments (MIS-01 and MIS-02), each containing 6 consecutive rounds. One vial is tested each month and reconstituted to obtain 100 ml of sample for testing.

Available Tests

Meat Industry Scheme Program (MIS-01 and MIS-02)	
Count (cfu/g and cfu/cm2):	**Detection (per 25 g):**
Plate count	*Salmonella* spp.
E. coli	*E. coli* O157
Coliforms	

Swab Programs (SW)

Hygiene protocols are part of normal, and often government required, maintenance processes of food production facilities. IFM Swabs PTP series are designed for laboratories undertaking these testing activities whether they are an in-house department of a food production facility or an external testing laboratory.

There are three rounds offered per year. SW1 focuses on General Hygiene Checks, SW2 focuses on Gram Negative Organisms, and SW3 focuses on Gram Positive Organisms.

Frequency /Format

Two samples are provided each round, in triplicate to help cover all testing requirements of the laboratory. The format of the samples provided are a swab or cloth-based material in vials. Instructions are provided to participants regarding rehydration of the samples required prior to testing.

Available Tests

Swabs Programs		
SW1 General Hygiene	**SW2** Gram Negative	**SW3** Gram Positive
Count (per swab):	**Count (per swab):**	**Count (per swab):**
Plate count	Coliforms	*Listeria monocytogenes*
Anaerobic count	Enterobacteriaceae	Coagulase positive *Staphylococcus* spp.
Yeast	*E. coli*	
Mould	**Detection (per swab):**	**Detection (per swab):**
	Campylobacter spp.	*Listeria monocytogenes*
	E. coli	Coagulase positive *Staphylococcus* spp.
	Salmonella spp.	*Clostridium* spp.
	E. coli O157	

Pathogenic *E. coli* (MX)
E. coli O157 and the other 'Big 6'

Shiga toxin-producing *E. coli* (STEC) can be severe pathogens. This IFM program provides the opportunity for laboratories to safely participate in proficiency testing using instruments and kits based on PCR technologies.

IFM's PTP is designed such that there is only minimal modification to the laboratory's routine test methods.

Frequency /Format

Two rounds are provided per year (MX1 and MX2). Each program provides three freeze-dried samples. Each sample may contain:

- viable non-pathogenic organisms
- genetic material from pathogenic organisms

Available Tests

Pathogenic *E. coli* (MX1 and MX2)	
Detection:	**Detection (continued):**
E. coli O26	*E. coli* O145
E. coli O45	*E. coli* O157
E. coli O103	*eae* genes
E. coli O111	*stx* genes
E. coli O121	

Pharmaceutical (PH)

Pharmaceutical products are essential to aid, assist and maintain good health of people and animals. This requires careful monitoring of the raw elements and shelf life of these products.

Frequency /Format

There are 3 rounds offered per year, each providing three samples for testing. Each program consists of a different sample matrix to focus on different testing formats and organism content:

- PH1 comprises of lotion with an accompanying freeze-dried vial for testing. Instructions are provided for minor rehydration requirements.
- PH2 comprises of 130 g of herbal tea to test as received.
- PH3 comprises of 130 g of capsules and/ or unpressed tablets to test as received.

Detection tests are offered per 1.0 g and per 10 g for each round depending on the laboratory's detection limits.

Available Tests

Pharmaceutical Programs		
PH1 Lotion	**PH2** Herbal Tea	**PH3** Capsules and/ or Unpressed Tablets
Count (cfu/g):		
Total aerobic microbial count (TAMC)		
Total yeast and mould count (TYMC)		
Mould		
Yeast		
Detection (/10 g and /1 g):	**Detection (/10 g and /1 g):**	**Detection (/10 g and /1 g):**
Pseudomonas aeruginosa	*E. coli*	*Candida albicans*
Candida albicans	Coagulase positive *Staphylococcus* spp.	*E. coli*
Coagulase positive *Staphylococcus* spp.	*Salmonella* spp.	Coagulase positive *Staphylococcus* spp.
E. coli	*Clostridium perfringens*	*Salmonella* spp.
	Clostridium spp.	*Pseudomonas aeruginosa*
	Pseudomonas aeruginosa	*Pseudomonas spp.*
		Gram negative bacteria (bile tolerant)

Veterinary Microbiology Scheme (VMS)

Whether animals of industry, or a pet in our home, making sure they are healthy is our responsibility.

IFM's Veterinary Microbiology Scheme (VMS) has been operating for over 20 years and incorporates case notes to check for clerical errors on specimen labels, as part of the program to provide an authentic experience.

Frequency /Format

12 freeze-dried vials are provided per year, sent in 2 consignments (VMS-01 and VMS-02), each containing 6 consecutive rounds.

One vial is tested each month and reconstituted according to PTP instructions.

Available Tests

Formal assessments of the below biochemical tests normally occur:

- Gram stain reaction and shape
- Catalase test
- Oxidase test
- Motility test
- Determination of growth in air, carbon dioxide and anaerobic conditions

Organism identification, significance and antibiotic sensitivity outcomes are presented and discussed for participant interest.

Sterility (ST)

Applicable to Commercial and Surgical Testing.

Many industries require the use of sterile equipment, including healthcare and laboratory testing across a number of fields and disciplines.

It is essential to ensure that the equipment, implements and consumables used are fit for use, including the claim of sterility.

This program aims to establish proficiency of those laboratories undertaking sterility testing for these purposes. It is expected participants test to determine if the samples are free from aerobic, anaerobic and fungal contaminants.

Frequency /Format

One round of IFM Sterility PT is offered biennially. Three samples are provided for testing as 'received'. Sample type provided varies, but will be a solid material, e.g. medical dressings, tweezers, etc.

Available Tests

Sterility Program (ST1)	
Detection (per sample):	**Sterile (Yes /No)**
Bacteria (aerobically)	
Bacteria (anaerobically)	**Identification:**
Fungi	Identification of bacteria (if present)
	Identification of fungi (if present)

Sludge (SL)

Recycled biosolids like sewage sludge can have many uses beyond simply being a waste product. Some applications include agriculture, horticulture, urban landscaping and environmental rehabilitation. All of these applications are dependent on the microbial grade given to these materials after the treatment process.

Frequency /Format

One round of IFM Sludge PT is offered biennially. Three samples are provided consisting of sludge material in a plastic sachet and a freeze-dried vial. Instructions are provided to participants for minor rehydration before combining the matching sludge material and vial prior to testing.

Available Tests

SL1	
Count (cfu/g):	**Detection (per 25 g)**
E. coli	*Salmonella* spp.
Plate count	
Thermotolerant (faecal) Coliforms	

Custom PTP

Customers may approach IFM regarding design of a custom program to cater for individual quality, or proficiency testing requirements if IFM advertised programs do not cover the laboratory's needs or schedule.

IFM has on hand a wide variety of organisms and CRM products that could be combined to plan a program to fit the needs, budget, and timeframe of individual testing laboratories, group of laboratories within a company, or group of analysts within a testing laboratory.

Certified Reference Materials (CRMs)

IFM can supply pure control cultures and culture matrices for microbiology laboratories.

Each culture or matrix is supplied with a link to the certificate providing mandatory traceability and quality control information. In the case of CRM products, the assigned and calculated limits of analyte values are provided on each certificate.

Matrix CRM Catalogue

Matrix CRM Directory

Qualitative Reference Cultures

How to Order

Visit our website for more information and to order.

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DISCLAIMER

1. Images shown are for illustration purposes only and may not be an exact representation of the current sample.

2. Sample design or available tests may change without notice.

3. Laboratories shall use the Final instructions provided by IFM during the program.

4. All care has been taken in the preparation of this catalogue. However, IFM accepts no responsibility for errors or omissions.