

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Legal Name of Accredited Laboratory: Canadian Food Inspection Agency

Location Name or Operating as (if applicable): Calgary Laboratory

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| SCC File Number: | 15322 |
| Accreditation Standard(s): | ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories |
| Fields of Testing: | Biological Chemical/Physical |
| Program Specialty Area: | Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Test Method Development and Evaluation and Non-routine Testing (TMDNRT) |
| Initial Accreditation: | 1997-10-08 |
| Most Recent Accreditation: | 2021-08-09 |
| Accreditation Valid to: | 2025-10-08 |

Remarque: La présente portée d'accréditation existe également en français, sous la forme d'un document distinct.

Note: This scope of accreditation is also available in French as a document issued separately.

TEST METHOD DEVELOPMENT & EVALUTATION AND NON-ROUTINE TESTING

Description of activities – chemical analysis:

1. The development and validation of analytical methods for the detection, characterization and quantification and screening of pesticide residues in food and beverages, feeds, and fertilizers.
2. The development of methods for the detection, characterization and quantification of environmental contaminants in food and beverages, fish and seafood, feed and feed ingredients and in fertilizers (compost and bio solids.)
3. The modification, adaptation, improvement and validation of existing or published methods for identification and quantification of pesticide residues and other chemical contaminants in food and beverage, animal feeds and fertilizers (including compost).
4. The modification, adaptation, improvement and validation of published or existing methods for identification and quantification of environmental contaminants (including ultra-trace levels of dioxins, furans and PCBs) and other persistent organic pollutants in food such as fish and seafood, beverages (such as raw milk, wine), animal feeds and feed ingredients, and fertilizers (including compost and bio solids.)

Description of techniques – chemical analysis:

1. Evaluation and use of various extraction techniques such as liquid/liquid extraction, QuEChERS, SPE, Soxhlet, (and other extraction techniques including automated extraction techniques) for extraction of chemical contaminants from food, feed and fertilizer matrices.
2. Evaluation and use of instrumentation such as GC-MS, GC-MS/MS, LC-MS/MS, HPLC-Fluorescence for technology development and non-routine testing of Pesticides residues.
3. GC-HRMS and GC-MS/MS for technology development and non-routine testing of environmental contaminants (including ultra-trace levels of dioxins, furans and PCBs), and the use of LC-MS/MS and UHPLC-Q-Orbitrap for non-targeted testing.

Description of activities – biological analysis:

1. De novo development and validation of analytical methods for detection, quantification, isolation, identification and characterization of bacteria in food, water and environmental samples.
2. Modification, improvement and validation of published or existing methods for quantification, isolation, identification and characterization of bacteria in food, water and environmental samples.
3. Development, modification and validation of methodology for identification and quantification of meat species.

Description of techniques– biological analysis:

1. Molecular (including traditional PCR, real-time PCR, digital PCR, commercial PCR platforms, whole genome sequencing, recombinase polymerase amplification) and cultural (including enrichment, selective enrichment, differential plating, biochemical confirmation, microscopy, serology) pathogen detection.
2. Enumeration of pathogens and indicator bacteria by agar spread and pour plates, overlay plates, and commercial agar alternatives.
3. ELISA for meat species detection.

ANIMAL AND PLANTS (AGRICULTURE)

Foods and Edible Products (Human and Animal Consumption):

(Biological Tests – Microbial Contaminants Unit)

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| CFIAFMWG-001 | Enumeration of <i>Escherichia coli</i> Using Compact Dry EC Medium Count Plates |
| ISO 21528 | Horizontal method for the detection and enumeration of <i>Enterobacteriaceae</i> |
| ISO 22964 | Horizontal method for the Detection of <i>Cronobacter spp.</i> |
| MFHPB-03 | Determination of the pH of Foods Including Foods in Hermetically Sealed Containers |
| MFHPB-10 | Isolation of <i>Escherichia coli</i> O157:H7/NM from foods and environmental surface samples |
| MFHPB-18 | Determination of the Aerobic Colony Count in Foods Only for: Mesophilic bacteria |
| MFHPB-19 | Enumeration of Coliforms, Faecal Coliforms and of <i>E. coli</i> in Foods Using the MPN Method |
| MFHPB-20 | Isolation and Identification of <i>Salmonella</i> from Foods and Environmental Samples |
| MFHPB-21 | Enumeration of <i>Staphylococcus aureus</i> in Foods |
| MFHPB-22 | Enumeration of Yeasts and Moulds in Foods |
| MFHPB-30 | Isolation of <i>Listeria monocytogenes</i> and other <i>Listeria spp.</i> from Food and Environmental Samples |
| MFHPB-33 | Enumeration of Total Aerobic Bacteria in Food Products and Food Ingredients Using 3M™ Petrifilm™ Aerobic Count Plate |
| MFHPB-34 | Enumeration of <i>E. coli</i> and Coliforms in Food Products and Food Ingredient using 3M Petrifilm <i>E. coli</i> Plates |
| MFLP-15 | The Detection of <i>Listeria</i> Species from Environmental Surfaces Using the Dupont Qualicon BAX® System Method and Direct Plating |

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| MFLP-22 | Characterization of Verotoxigenic <i>Escherichia coli</i> O157:H7 Colonies by Polymerase Chain Reaction (PCR) and Cloth-Based Hybridization Array System (CHAS) |
| MFLP-28 | The Qualicon BAX® System Method for the Detection of <i>Listeria monocytogenes</i> in a Variety of Food |
| MFLP-29 | Detection of <i>Salmonella</i> in Foods and Environmental Surface Samples Using the BAX® System <i>Salmonella</i> Assay |
| MFLP-30 | Detection of <i>Escherichia coli</i> O157:H7 in Select Foods using the BAX® System <i>E. coli</i> O157:H7 MP |
| MFLP-46 | Isolation of Thermophilic <i>Campylobacter</i> in Foods |
| MFLP-52 | Isolation and Identification of Priority Verotoxigenic <i>Escherichia. coli</i> (VTEC) in Foods |
| MFLP-53 | Identification of <i>Listeria monocytogenes</i> colonies by polymerase chain reaction (PCR) and cloth-based hybridization array system (CHAS) |
| MFLP-66 | Determination of Water Activity Using the Aqualab Instrument |
| MFLP-70 | Characterization of Verotoxigenic <i>Escherichia coli</i> (VTEC) Colonies by Polymerase Chain Reaction (PCR) and Cloth-Based Hybridization Array System (CHAS) for Virulence Markers and Seven O Serogroups |
| MFLP-74 | Enumeration of <i>Listeria monocytogenes</i> in Food |
| MFLP-75 | Procedure for the Isolation of <i>Salmonella</i> species by the Modified Semi-Solid Rappaport Vassiliadis (MSRV) Method |
| MFLP-76 | The Dupont Qualicon BAX® System Real-Time Method for the Detection of <i>E. coli</i> O157:H7 in Raw Beef Trim and Raw Ground Beef |
| USDA/FSIS Chap.17 | Identification of Animal Species in Meat and Poultry Products |

(Chemical Tests – Environmental Contaminants Unit)

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| EC-001 | Determination of Polychlorinated Dibenzo-p- Dioxins, Polychlorinated Dibenzofurans and Polychlorinated Biphenyls in Milk, Fish products and seafood, Feed Additives and Fertilizers by Isotope Dilution on GC/HRMS |
| EC-005 | Determination of Polycyclic Aromatic Hydrocarbons in Fish and Smoked Fish by GC/HRMS |

(Chemical Tests – Pesticide Residues Unit)

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| F-F-001 | Multiresidue Method for the Determination of Pesticides in Animal Feeds (GPC/SPE Clean-up and GC/MSD Detection) |
| F-F-007 | Determination of Pesticide Residues in Fertilizers using GC/MSD and LC/MS/MS |
| PMR-001 | Determination of Pesticides in Fruits and Vegetables (with Solid Phase Extraction Clean-Up and GC/MSD Detection) |

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| PMR-005 | Determination of Pesticides in Difficult Matrix Fruits and Vegetables (with Solid Phase Extraction Clean-Up and GC/MSD Detection) |
| PMR-008 | Multi-residue Method for the Determination of Organochlorine Pesticides in Fish Oil (GPC/SPE Clean-up, GC/MSD Detection) |
| PMR-016 | Determination of Pesticides in Fruits and Vegetables Using Liquid Chromatography Electrospray Ionization Mass Spectrometry (UHPLC/ESI-MS/MS) |
| PMR-017 | Determination of Glyphosate/Glufosinate and their metabolites in Animal Feed by LC-MS/MS |
| PMR-018 | Determination of Pesticides in High Fat Content Food Matrices using LC-MS/MS |
| PMR-019 | Determination of Pesticides in Nuts and Seeds by GC-MS Detection and QuEChERS Extraction |
| PMR-020 | Determination of Pesticides Residues in Compost using GC-MSD and LC-MS/MS |
| PMR-021 | Determination of Pesticides in Fish and Shellfish using GC-MS/MS |
| PMR-022 | Determination of Pesticides in Animal Feed using LC-MS/MS |
| SPR-002 | Determination of EBDC as EDA Conversion in Fruits and Vegetables (HPLC with Fluorescence Detection Method) |

Other (specify):

Number of Scope Listings: 42

Notes:

ISO/IEC 17025:2017: General Requirements for the Competence of Testing and Calibration Laboratories

RG-TMDNRT: SCC Requirements and Guidance for Accreditation of Laboratories Engaged in Test Method Development and Non-Routine Testing

EC-; F F-; PMR-; SPR-: Methods in the Analytical Methods Manuals of the Canadian Food Inspection Agency Calgary Laboratory.

CFIAFMWG : Methods from the Food Microbiology Working Group of the CFIA

MFHPB; MFLP: Methods in the Compendium of Methods for the Microbiological Examination of Foods. Health Canada

USDA/FSIS: Method in the United States Department of Agriculture/ Food Safety Inspection Service Microbiology Laboratory Guidebook



This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at www.scc.ca.

Elias Rafoul
Vice-President, Accreditation Services
Publication on: 2022-08-08