

# 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):	OTTAWA LABORATORY - FALLOWFIELD
Contact Name:	Thomas Niederberger
Address:	3851 Fallowfield Rd, Ottawa, ON K2H 8P9
Telephone:	+1 250-888-9221
Email:	Thomas.Niederberger@inspection.gc.ca

SCC File Number:	15367
Accreditation Standard(s):	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
Fields of Testing:	Biological
Program Specialty Area:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Test Method Development and Non-routine Testing (TMDNRT)
Initial Accreditation:	1999-12-17
Most Recent Accreditation:	2024-07-05
Accreditation Valid to:	2027-12-17

## **TEST METHOD DEVELOPMENT & NON-ROUTINE TESTING:**

**Note**: Laboratories accredited under this Program Specialty Area have demonstrated that they meet ISO/IEC 17025 requirements for routine testing under the same product classification as described above.

### Description of activities: Ottawa Plant Laboratory





To develop and/or validate new methods for the detection and/or identification of plant quarantine pests, invasive alien species, plant species and/or cultivars (including genetically modified) using DNA-based, biochemical, serological, and other techniques and through the collection of reference sequence and fingerprints.

#### **Description of techniques:** Ottawa Plant Laboratory

- 1. Isolation and culture of fungi, bacteria and nematodes
- 2. Microscopic examination, morphological and morphometric identification
- 3. Moist chambers/blotter boxes for plant material and seeds, filtration of water, soil baiting, selective size sieving
- 4. GC-FAME and BIOLOG carbohydrate utilization assays for bacterial identification
- 5. ELISA for seedborne virus identification
- DNA based methodologies including DNA extraction, Agarose Gel Electrophoresis, PCR (end-point PCR, qPCR, conventional PCR) SNP genotyping, Capillary DNA genetic analyser for Sanger sequencing and microsatellite analysis, next generation sequencing and isothermal amplification.

#### **Description of activities:** Ottawa Animal Health Laboratory (OAHL)

To develop, optimize, validate and transfer new methods for improving the diagnosis and control of diseases in animals in support of Program activities related to disease detection and surveillance.

#### **Description of techniques:** Ottawa Animal Health Laboratory (OAHL)

- 1. Conventional culture methods of bacterial agents,
- 2. Virus cell culture, titration, isolation, growth, purification of whole virus and components and virus neutralization assays
- 3. Antibody purification (affinity columns), antibody labelling (FITC and enzymes),
- 4. Enzyme linked immunosorbent assays (ELISAs) indirect and competitive and ligand based EIAs, fluorescence polarization assay (FPA)
- 5. Histopathology, immunofluorescence staining of infected cells and tissues (direct and indirect)
- Protein based techniques including protein concentration estimation assays, polyacrylamide gel electrophoresis (SDS-PAGE), Western blot, Immunblot, protein misfolding cyclic amplification (PMCA), real-time quaking induced conversion assay (RT-QuIC)
- RNA/DNA based methods including extraction, nucleic acid measurement (spectrophotometric or fluorescent methods), RT-PCR (reverse transcription PCR), qPCR (real-time PCR), RT-qPCR, multi-locus variable-number tandem repeat analysis, DNA sequencing including Sanger and Illumina technologies
- 8. Mouse bioassay

#### Description of activities: Food Safety Research

To develop and evaluate new testing methodologies for the isolation, characterization and detection of microbial pathogens in foods.





#### Description of techniques: Food Safety Research

- 1. Bacterial culture, isolation and identification tools including conventional culture methods, immunomagnetic separation and biochemical procedures
- 2. Molecular cloning of bacterial genes
- 3. Expression and purification of recombinant proteins
- 4. Identification of bacterial proteins using mass spectrometry
- 5. Techniques for extraction, purification and quantitation of DNA/RNA and proteins including gel and capillary electrophoresis and sequencing
- 6. Immunological tools (agglutination, ELISA and Western blotting)
- DNA/RNA based techniques including: PCR (conventional, multiplex and real-time) SNP analysis, loop-mediated isothermal nucleic acids amplification, whole genome sequencing and bioinformatics tools

#### ANIMAL AND PLANTS (AGRICULTURE)

#### Ottawa Plant Laboratory - Entomological Examinations\*

SOP# OPL-PR012	Identification of Insects, Mites and Terrestrial Molluscs
SOP# OPL-PR-128	Gypsy Moth Identification using TaqMan PCR Assay

#### **Ottawa Plant Laboratory - Genotyping/Botanical Examinations\***

SOP# OPL-PR084	Diagnostic Testing for LMOs
SOP# OPL-PR085	Genotyping of Plant Varieties using Amplified Fragment
	Length Polymorphism (AFLP)
SOP# OPL-PR109	Botanical Identification of Plant Species
SOP# OPL-PR126	Genotyping of Plant Varieties using SSRs

#### **Ottawa Plant Laboratory - Nematological Examinations\***

LDP# PQ-LD003	The Extraction, Recovery, Mounting and Identification of Plant
	Parasitic Nematodes from Soil, Plant Medium and Plant
	Material.

#### Ottawa Plant Laboratory-Phytopathological - Examinations\*

SOP# OPL-PR028	Seed Wash Extraction for all Ustilaginales and other Fungal
	Spores Transported by Grain and Straw
SOP# OPL-PR037	Detection of Curtobacterium flaccumfaciens
	pv.flaccumfaciens in seed
SOP# OPL-PR038	Detection of Xanthomonas translucens pathovarsin seed
SOP# OPL-PR041	Detection of Pseudomonas syringae, pv. atrofacians,
	striafaciens and coronafaciens in seed
SOP# OPL-PR098	Detection of Phytophthora ramorum by TaqMan Real Time
	PCR using a Liquid Handling Robotic System
SOP# OPL-PR100	General Diagnostic Procedures for Plant, Seed, Soil and
	Water Samples Submitted for the Routine Diagnosis of Plant
	Diseases and for the Identification of Plant Pathogens





#### Veterinary-OAHL-Anatomic Pathology – Histopathology, Mycobacterial Diseases

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SOP# MY-PR036	Histopathological Interpretation of Tissues Submitted from
	Animals Suspected of Tuberculosis
SOP# MY-PR099	Detection of Mycobacterium tuberculosis Complex Organisms
	in Formalin-fixed, Paraffin-embedded Tissues by PCR
	Amplification of an IS6110 Insertion Sequence

#### Veterinary-OAHL-Anatomic Pathology - Rabies

LDP# RA-LD001	Fluorescent Antibody Test (FAT) for the Detection of Rabies
	Virus Antigen

#### Veterinary-OAHL-Anatomic Pathology-Transmissible Spongiform Encephalopathy

Detection of Central Nervous System Tissue in Beef by
Histological Examination of Hematoxylin and Eosin Staining
and GFAP Immunohistochemistry
Detection of Prion Protein Associated with BSE, Scrapie and
CWD using the Bio-Rad TeSeE™ SAP Assay
Genotyping Sheep for Scrapie Susceptibility/Resistance by
Real-Time PCR
Confirmation of Prion Protein Specific for Scrapie and CWD
Using BioRad's TeSeE <sup>™</sup> Western Blot Kit
Immunohistochemical Detection of Prion Protein in Animal
Transmissible Spongiform Encephalopathies: Scrapie in
Sheep and Goats
Immunohistochemical Detection of Prion Protein in Animal
Transmissible Spongiform Encephalopathies: Chronic Wasting
Disease (CWD) in Deer and Elk
Allelic Determination for Elk Codon 132 and White-Tailed Deer
Codon 96 by Real-Time PCR

#### Veterinary-OAHL-Microbiology-Animal Health Microbiology

LDP# AHML-LD001	Bovine Genital Campylobacteriosis - Procedure for the
	Isolation and Identification of Campylobacter fetus
LDP# AHML-LD004	Contagious Equine Metritis: Procedure for the Isolation and
	Identification of Taylorella equigenitalis
LDP# AHML-LD005	Salmonellosis: Procedure for the Isolation and Identification of
	Salmonella Serovars
SOP# AHML-PR007	Detection of Campylobacter fetus ssp. in Clark's TEM
	samples, and identification of suspect C.fetus ssp. pure
	culture isolates, using an antigen capture Monoclonal antibody
	based ELISA procedure
SOP# AHML-PR013	Detection of <i>Taylorella equigenitalis</i> from submitted sample
	swabs from horses and proficiency panel samples, and to help
	confirm the accurate identification of pure culture suspect





isolates as T.equigenitalis, including discrimination from
<i>Taylorella asinigenitalis</i> using a Quantitative Real-Time PCR
(qPCR)

## Veterinary-OAHL-Microbiology-Mycobacterial Diseases

SOP# MY-PR022	Differentiation of mycobacterial isolates on the basis of growth
	characteristics and preparation of inoculum for identification
SOP# MY-PR032	The Processing of Specimens for Mycobacterial Isolation

#### Veterinary-OAHL-Serological Diagnosis, Brucellosis

SOP# SDU-PR013	Protocol for the Agar Gel Immunodiffusion Test for the
	detection of antibodies to Paratuberculosis in animal serum
SOP# SDU-PR009	Protocol for the Brucella Buffered Plate Agglutination Test
	(BPAT) for the detection of antibodies to Brucella abortus,
	melitensis and suis
SOP# SDU-PR-014	Protocol for the Brucella EDTA modified Tube Agglutination
	Test (BRUC-TAT) for the detection of antibodies to Brucella
	abortus, B. melitensis and B. suis
SOP# BR-PR005	Micro Complement Fixation Test
SOP# BR-PR007	Macro Complement Fixation Test
SOP# BR-PR038	Use of the Mycobacterium paratuberculosis Antibody Test kit
	(ELISA) for the Diagnosis of Mycobacterium paratuberculosis
	infections in cattle
SOP# BR-PR040	Fluorescence Polarization Assay (FPA) (single
	tube) for detection of serum antibody to Brucella spp:
	Presumptive serological diagnosis in bison, cervids, sheep
	and goats
SOP# BR-PR041	Competitive Enzyme Linked Immunosorbent assay (C
	ELISA) for Detection of Serum Antibodies to Brucella spp.:
	Presumptive serological diagnosis in cattle, bison and cervids
SOP# BR-PR042	Indirect Enzyme Immunosorbent Assay (I-ELISA) for Detection
	of Serum Antibodies to Brucella spp.: Presumptive serological
	diagnosis in goats, pigs and sheep
SOP# BR-PR048	High Throughput 96 Well Fluorescence Polarization Assay
	(FPA) for detection of porcine antibody to Brucella spp.
SOP# BR-PR047	High Throughput 96 Well Fluorescence Polarization Assay
	(FPA) for detection of bovine antibody to Brucella spp.
SOP#SDU-PR004	Use of the Mycobacterium Bovis Antibody Test kit (ELISA) for
	the diagnosis of Mycobacterium bovis infections in cattle
SOP#SDU-PR008	Use of the BOVIGAM® Mycobacterium bovis Gamma
	Interferon Test Kit (Phase 2) for the in vitro diagnosis of
	bovine tuberculosis in cattle
SOP# SDU-PR015	Dual Path Platform (DPP) VetTB Assay for Detection of
	Serum Antibodies tp Mycobacterium bovis in Cervids





Number of Scope Listings: 44

Number of Techniques: 21

## Notes:

This laboratory's scope of accreditation is granted under a flexible type. The list of methods subject to this type of scope are already present under fixed portion for Ottawa Plant Laboratory and Ottawa Animal Health Laboratory (OAHL).

CLIENTS SERVED:	Normally Reserved for Internal Clients
LDP, SOP:	Subject Laboratory's Internal Procedures
ISO/IEC 17025:	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

Ottawa Plant Laboratory - Entomological Examinations Testing conducted at the following address: Canadian Food Inspection Agency (CFIA) Ottawa Plant Laboratory (Central Experimental Farm) - Entomology 960 CARLING AVENUE, BUILDING 18 and K. W. Neatby Building Ottawa, Ontario K1A 0C6 Canada

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 <u>www.scc-ccn.ca</u>.

Elias Rafoul Vice-President, Accreditation Services Publication on: 2024-07-08

