

Centre for Foodborne and Animal Parasitology

This national centre specializes in parasites of significance to food safety, animal health and/or trade.

International Reference Laboratory and Collaborating Centre

- World Organisation for Animal Health (OIE) Reference Laboratory for Trichinellosis (a disease caused by the roundworm *trichinella*)
- OIE Collaborating Centre for Food-borne Zoonotic Parasites (transmitted between animals and people)

Proficiency testing (PT)

- Provide *Trichinella* proficiency samples and related oversight to support alternative service delivery of CFIA domestic and export programs.

Research

- Develop and validate testing methods
- Detection and control of food-borne and animal parasites
- Molecular characterization

Diagnostic testing

- Perform routine diagnostic testing, monitoring and surveillance of food-borne and animal parasites to protect consumers and livestock, and to support trade
- Implement a variety of techniques, from traditional parasitological (e.g. microscopic examination, culture) to serological (blood serum) and molecular detection methods



QUALITY MANAGEMENT

All CFIA laboratories have demonstrated conformance to ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*. The Standards Council of Canada evaluates our laboratories against this international standard, as a formal verification of the CFIA's capability to produce accurate and reliable results, within our accredited scope of testing. The results are supported by the development, validation and implementation of scientific methods, conducted by highly qualified personnel, using reliable products, services, and equipment, in a quality controlled environment. Participation in international proficiency testing programs further demonstrates that our testing is comparable to laboratories across Canada and around the world.



FOR FURTHER INFORMATION

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Saskatoon Laboratory



Safeguarding with Science



CANADIAN FOOD INSPECTION AGENCY

The Canadian Food Inspection Agency (CFIA) is responsible for delivering federally mandated programs for food inspection, plant and animal health. The Agency relies on high-quality, timely and relevant science as the basis of its program design and regulatory decision-making. Scientific activities inform the Agency's understanding of risks, provide evidence for developing mitigation measures, and confirm the effectiveness of these measures.

CFIA scientific activities include laboratory testing, research, surveillance, test method development, risk assessments and expert scientific advice. Agency scientists maintain strong partnerships with universities, industry, and federal, provincial and international counterparts to effectively carry out the CFIA's mandate.

THE SASKATOON LABORATORY

The Saskatoon Laboratory consists of three specialized centres located at two sites on the University of Saskatchewan campus and a third location at the Innovation Place Research Park. The laboratory speciality areas are:

- Centre for Seed Science and Technology
- Centre for Veterinary Drugs Residues
- Centre for Foodborne and Animal Parasitology

The scientists at the Saskatoon laboratory are experts in parasitology, veterinary drug residues and related compounds, as well as seed science.

WHAT WE DO

Centre for Seed Science and Technology

This centre specializes in the quality assessment of seed and grain, as well as identifying crop and weed seeds, by using plant physiology, morphology and taxonomy.

National Seed Herbarium

- Manage and expand Canada's only national reference collection for seed identification
- Provide seed identification services and specimen references to CFIA and commercial seed testing labs

Accreditation programs and proficiency testing

- Provide accreditation or authorization for alternative service delivery of diagnostic tests that support CFIA seed, grains, oilseeds and invasive plant programs
- Evaluation of analysts and officially recognized foreign seed testing laboratories
- Deliver proficiency testing panels annually to Canadian and international labs

Research

- Improve and publish official Canadian seed testing methods
- Develop and validate testing methods for seed and grain
- Develop seed identification methods and training resources

Diagnostic testing

- Perform routine diagnostic testing, monitoring and surveillance of seed and grain to protect consumers and support trade

Centre for Veterinary Drug Residues

This is a well-equipped, modern analytical chemistry facility that conducts research and testing for drug residue in foods of animal origin.

Research

- Methods of analysis for new drugs
- Methods of analysis for drugs of multiple classes with multiple residues
- Identify marker residues and perform drug residue depletion studies
- Identify unknown compounds

Testing of drug residues

Drug residues such as:

- antimicrobials
- growth promoters
- hormones and steroids
- banned substances
- other veterinary drugs and contaminants

Proficiency testing

- Provider of proficiency testing samples in a wide range of drugs

Key technologies

- Tandem and high resolution mass spectrometry: a multistep process for sorting ions and accurately measuring mass
- Liquid and gas chromatography: uses a liquid or gas to separate a material for molecular analysis