

CHANGING LIVES
IMPROVING LIFE



Welcome to Laboratory Services



A Division of the University of Guelph

Comprised of two laboratories:

- Animal Health Lab (Bldgs. 46 & 49 + Kemptville College)
- Agriculture & Food Lab (95 Stone Rd.)
- Not-for-profit, fee-for-service, analytical and diagnostic laboratory.

Our Vision:

“We will be a laboratory partner of choice for government and universities in Canada, for agriculture, food safety, and animal health testing. We will also be a leader in providing high-value laboratory services to the private sector in selected niche markets.”

Our Mission:

“Working together toward a healthier future...we provide high-value analytical and diagnostic services for the agricultural, food and veterinary sectors.”

A look back at our origins...

- 1992: Agriculture & Food Lab Services Centre (OMAFRA) opens
 - Existing CMTL (1960's) + PTCL (1970s) + Plant Disease Diagnostics (1970's)
 - Creation of Food Micro, Food Chem, Analytical Microscopy, Molecular Biology, Drug Residue

A look back at our origins...

- 1997:
 - Enhanced Partnership Agreement between OMAFRA and U of G
 - Lab Services Division created within U of G
 - AHL and AFL brought together
- 1998:
 - Soil & Nutrient lab (LRS) joins Lab Services

Serving the needs of Ontarians:

- Pesticide residue testing
- Veterinary drug residue testing
- ID, enumeration, and source tracking of food pathogens
- Genetic ID of foods of plant/animal origin
- Plant disease diagnostics

Serving the needs of Ontarians:

- Dairy composition and quality testing
- Nutrient testing in soil and water
- Microbial testing in drinking water
- ID of contaminants (e.g. allergens, foreign material, melamine)
- Food composition and food additives

Pesticide Residue Testing:

- Over 300 pesticides and industrial pollutants in food, crop and environmental samples
- Recognized provincial experts (> 30 years experience)
- Multi-residue methods
- Special investigations support (OMAFRA, MOE)

Veterinary Drug Residue Testing:

- Rapidly expanding area of focus
- >50 cpds. covering 10 drug classes
- Meat, dairy, honey
- Multi-residue methods

Microbiology:

- Cover full spectrum of pathogens
- Rapid testing (DNA-based)
- Shelf-life studies, challenge studies
- Development, validation, implementation of Regulatory methods
- Resource for other labs for unusual IDs

Molecular Biology:

- Genetic (varietal) ID in fruits & vegetables
- Meat Speciation
- Source tracking of pathogens (strains)
- Testing for animal traits – breeding
- Forensic testing (ID of certain contaminants)

Other niche market services:

- Food allergen testing
- Foreign material ID
- Other chemical contaminants
- Specialized plant disease diagnostics (e.g. PPV)

Emergency Response:

- To provide immediate analytical and diagnostic support to the province
- To tackle new, emerging issues
 - maintain broad range of scientific experts to develop solutions to new problems
 - To develop methods where none exist

Our product:

- Report:
 - Identification/quantification (e.g. chemical, microorganism)
 - Diagnosis (e.g. disease)
 - Credible, legally defensible
 - Strictly confidential

Our Service:

- Turn-around time is critical
- Scientific interpretation & advice
- Partner with clients to find best solution:
 - Customized to meet needs of clients

How do we do what we do?

The right technology?

OR

Something else?

Our People:

- Key to our success!!
- **Passionate** about Food Safety
- Broad range of highly specialized scientists with avg. of 20+ years of experience
- “Artful application of science”
- highly-skilled and experienced technicians
- Support units: QA, IT, Sample Reception, Finance, Business Devel., Facility, Admin.

Our Quality System:

- Quality Manual – foundation (policies)
- SOPs – documented and controlled
- Continuous Improvement
- Competency – accreditation, audits, proficiency testing:
 - Internationally recognized

REGISTRATIONS & ACCREDITATIONS:

- **ISO 9001 (2000)**
- **ISO 17025**
- **American Association of Veterinary Laboratory Diagnosticians**
- **Standards Council of Canada – chemical and microbiological analyses**
- **Good Laboratory Practices (GLP) – recognized test site**
- **Canadian Association of Laboratory Accreditations**



Some high profile cases:

- Dog poisonings in Withrow Park (Toronto)
- Melamine and cyanuric acid in pet food:
 - Killed 1000's of cats and dogs worldwide
 - Estimated 50,000 animals ill
 - AHL vets & AFL chemists worked side-by-side
 - Mechanism discovered by one of our own scientists

Our contribution to R&D and Education:

- Lab experience for undergrad. students
- Research supervision and support for graduate students
- Applied research (method development)
- Scientific presentations & publications

Where the future will take us...

Together, we are committed to:

- Advancing methods through superior scientific approaches
 - » Actively participating at the leading edge of research

Where the future will take us...

Together, we are committed to:

- Assisting the Ontario agri-food sector in maintaining their global competitiveness
 - High-value, customized service offerings
 - Unique 'niche market' services

Where the future will take us...

Together, we are committed to:

- Working hand-in-hand with OMAFRA to maintain the highest level of food safety for Ontarians

“Our strength is in our collective expertise and our shared passion in ensuring that Ontario’s food supply is the safest in the world!”