

# AGRI-FOOD SERVICES



**AGAT** Laboratories

Service Beyond Analysis ■ [www.agatlabs.com](http://www.agatlabs.com)

AGAT Laboratories is a highly specialized, Canadian-based company that provides analytical laboratory services worldwide. We offer services to the Environmental, Energy, Mining, Industrial, Transportation, Agri-Food and Life Science sectors. With world-class facilities and state-of-the-art instrumentation, our qualified personnel adhere to our mission statement, delivering “Service Beyond Analysis”.



# AGRI-FOOD SERVICES

## Agri-Food

Our laboratories offer analytical services to aid in food safety, development and consulting to ensure that our clients remain compliant with all necessary regulations. The services we offer in this sector include analytical solutions provided by the divisions of Food Testing, Environmental Chemistry, Ultra-trace Toxicology and Tribology Preventative Maintenance.

## Agriculture

We provide soil salinity test packages to agricultural clients for testing site liability. Agricultural professionals utilize routine water chemistry packages to assess and classify the suitability of water quality for drinking or irrigation purposes. We also provide expert services ranging from basic fertilizer recommendations to complete soil profiling.

Agricultural clients may also benefit from utilizing our Tribology Preventative Maintenance services for monitoring and maintaining farming heavy equipment. Analyzing the engine fuel, oil, coolant and lubricants in operation equipment can help determine necessary maintenance and repairs prior to use. Fuel analysis has also been used to determine the quality of fuel that has been in storage containers over the winter.

## Food Testing Services

AGAT Laboratories' Food Testing Division offers services in food safety, development and consulting including:

- Microbiological analysis
- Chemical analysis
- Environmental Quality analysis
- Nutritional analysis and labelling

Our Food Testing Division also offers the following consulting services.

- Shelf-life testing
- Internal and third-party audits
- Regulatory compliance monitoring
- Hazard analysis and critical control point planning
- Risk management
- Sampling plans and testing schedules
- Training for sound hygiene and manufacturing practices

## Accreditation

Understanding that food safety is one of the largest public health and safety issues faced today, AGAT Laboratories is watchful to the welfare of consumers. We maintain procedures that equal or surpass criteria established by government agencies and recognized accreditation bodies. Our food science specialists are trained in Good Manufacturing Practices (GMPs) and Hazard Analysis and Critical Control Points (HACCP).

AGAT Laboratories is officially recognized by:

- Canadian Food Inspection Agency (CFIA)
- Standards Council of Canada (SCC)
- Canadian Association for Laboratory Accreditation (CALA)
- Ontario Ministry of the Environment
- Ontario Ministry of Environment Drinking Water Testing License
- Ministère du Développement Durable, de l'Environnement et des Parcs du Québec (MDDEP)
- Nova Scotia Ministry of the Environment and Labour
- British Columbia Drinking Water (EWQA)

AGAT Laboratories is accredited by the International Organization of Standardization for the following:

- ISO 9001:2008
- ISO/IEC 17025:200

## Environmental Contaminants

Many of our food industry clients have on-site water treatment facilities to effectively manage wastewater in a cost-effective manner. To ensure our clients remain compliant with all necessary regulations, our laboratory analyzes contaminants in water and soil as a complementary service to our food industry clientele. To ensure that your facility is maintaining a healthy and safe environment, we also offer comprehensive indoor air quality evaluations along with analytical services for mould, bacteria and other potentially harmful chemicals.

Some chemistry tests that we conduct through our Environmental Division include:

- Heavy metals
- Preservatives
- Pesticide, Herbicide and Insecticide residues
- Petroleum hydrocarbons
- Analysis of volatile and semi-volatile mixtures
- Contaminants including hydrocarbons, Dioxins, Furans, PCBs and PAHs

## Food Chemistry

Our food chemistry laboratory provides information concerning the composition of products necessary to industries that must conform to regulations on packaging and labelling of products for consumers. Many of our clients are mandated by the *Food and Drug Act* and the *Consumer Packaging and Labelling Act* to ensure their products include a specific list of nutritional facts on product labels in a pre-defined format. Included in our food chemistry services, we offer our clients an accurate sample of a Health Canada approved Nutrition Facts Table. These labelling requirements can be provided for both Canadian and American food products.



We test the following when providing services for nutritional analysis and labelling of the 13 core nutrient label:

- Calories
- Proteins
- Vitamin C
- Cholesterol
- Calcium
- Total fat and lipid profile
- Sodium
- Iron
- Dietary fibres and sugars
- Potassium
- Vitamin A
- Moisture and ash

We also offer specialty services for food profiling and contaminant identification through our Ultra-trace Toxicology Division. Our HRMS and LC-MS-MS instrumentation offers trace level detection for the analysis of vitamins, sugars, antibiotics, mycotoxins, melamine and comprehensive pesticide residue screening in food samples

## Microbiology

Our microbiology laboratories use up-to-date methodologies and instrumentation to guarantee high quality results for food safety and quality control. Our laboratory uses the *BAX Q7 System* which pinpoints pathogens on a genetic level, ensuring the detection of bacteria and other microbes.

Our food microbiological capabilities includes, but are not limited to:

### Pathogens

- *Listeria monocytogenes*
- *Bacillus cereus*
- *Salmonella* spp.
- *Clostridium botulinum*
- *E.coli* O157:H7
- *Clostridium perfringens*
- *Staphylococcus aureus*
- *Enterobacter sakazakii*



### Total Plate counts

- Yeast and Mold
- E. Coli
- Total Coliforms
- Thermophilic, Mesophilic Bacteria and Psychrophilic
- Enterobacteria and Spore-forming Bacteria
- Aerobic Bacteria
- Anaerobic Bacteria
- Lactic Acid Bacteria

## Information Management

*WebFOOD* is our secure, interactive database for our Agri-Food clients that integrates real-time data capture, giving clients access to real-time results. Additional features of *WebFOOD* include; data trending, guideline comparisons, quality control checks, customizable export functions and a searchable library of historical data. AGAT Laboratories utilizes a state-of-the-art *Laboratory Information Monitoring System (LIMS)* that monitors all data being processed within the laboratory.

*LIMS* monitors quality control systems and processes results instantly as analytical testing is completed.

