

Better Food. Better Health. Better World.



360° Solutions



OUR STORY

We leverage over 50 years of scientific and entrepreneurial expertise to answer food industry needs. Today's global challenges transform the way food is produced, marketed and consumed, which is why we know our clients need more than reliable analytical results; they need practical and innovative solutions that will contribute to make food systems safer, healthier and more sustainable.

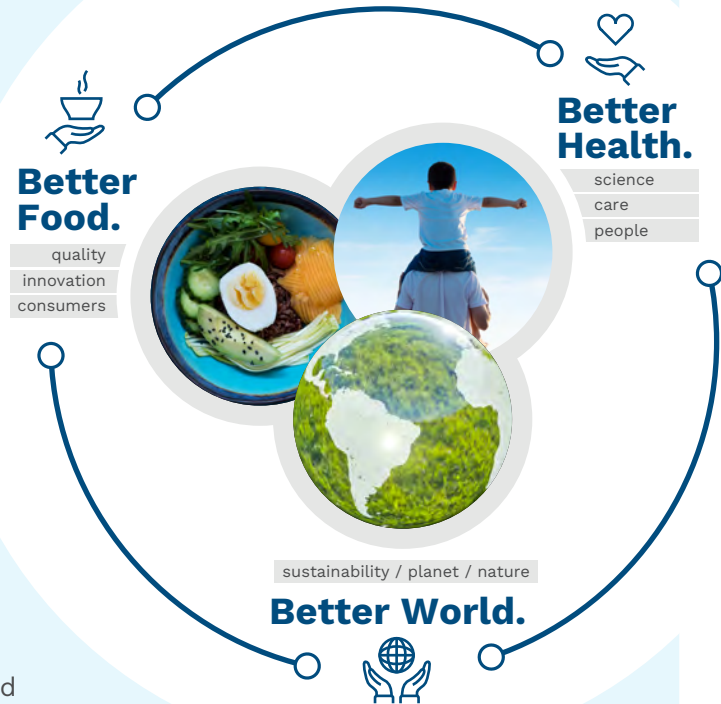
From our initial expertise in microbiology and consultancy, we have broadened our scope of scientific specialties into chemistry, microbiology, digital tools, auditing, training, consultancy, labeling sensory, and research in order to offer a complete suite of services to meet our customers' needs.

Today, we offer 360° solutions to support our clients, from product development to sustainable business, while contributing to consumers' health worldwide.

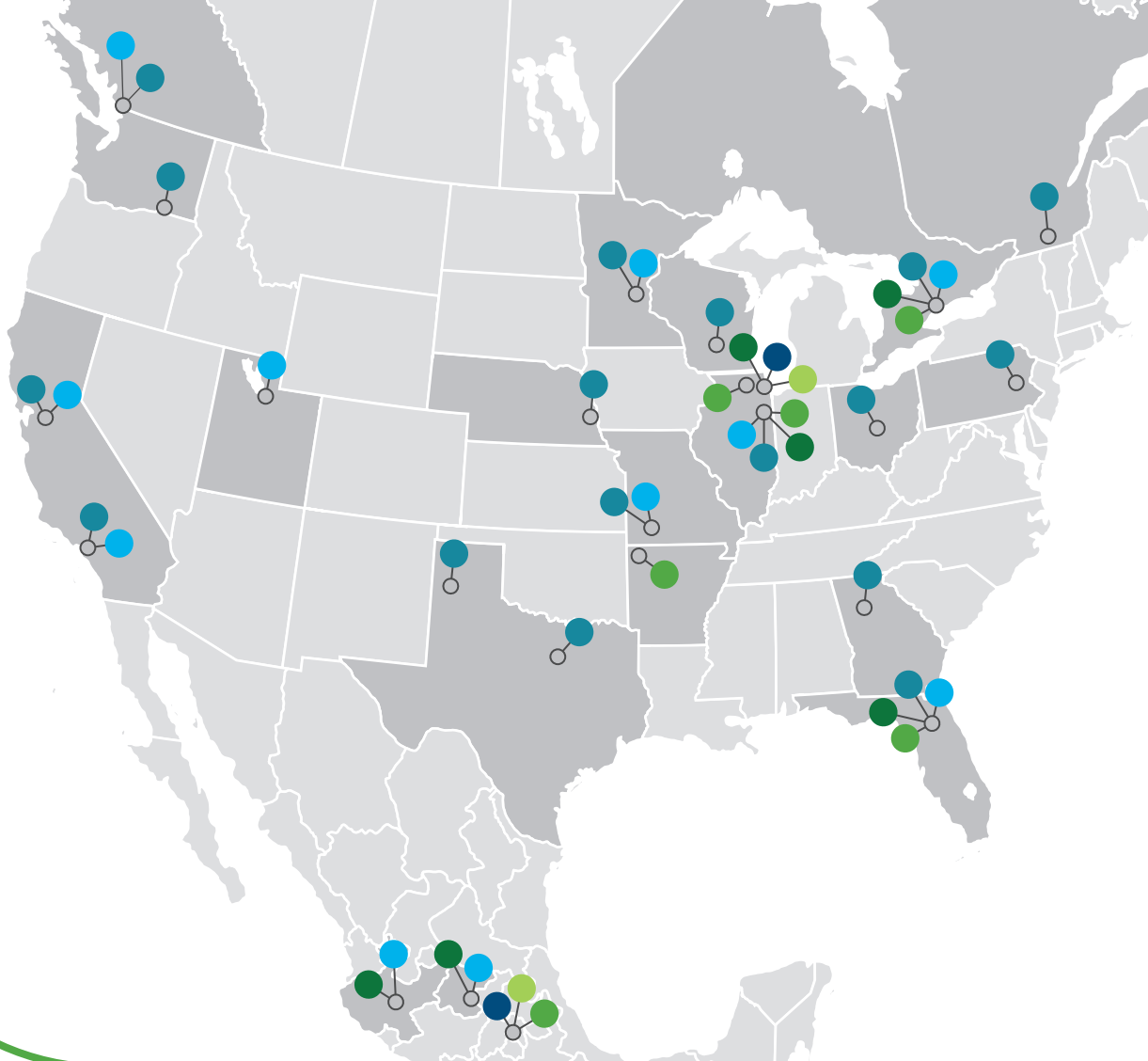
Present worldwide, we are more than 100 accredited laboratories and a team of over 8,000 committed employees.

We strongly believe that together, we can create solutions to offer our planet:

BETTER FOOD. BETTER HEALTH. BETTER WORLD.



LOCATIONS



Chemistry

Burnaby, BC
Crete, IL
Cypress, CA
Gainesville, FL
Markham, ON
Minnetonka, MN
Salida, CA
Salt Lake City, UT
Springfield, MO
Querétaro, Qro
Guadalajara, Jal



Microbiology

Allentown, PA
Amarillo, TX
Arlington, TX
Burnaby, BC
Columbus, OH
Crete, IL
Cypress, CA
Gainesville, FL
Kennewick, WA
Madison, WI
Markham, ON
Minnetonka, MN
Montreal, QC
Omaha, NE
Salida, CA
Springfield, MO
Stone Mountain, GA
Mexico City



Digital Tools*

Chicago, IL
Mexico City



Auditing & Training*

Chicago, IL
Mexico City



Consultancy & Labeling*

Consultancy
Chicago, IL
Mexico City

Labeling

Chicago, IL
Gainesville, FL
Markham, ON
Crete, IL
Mexico City
Querétaro, Qro
Guadalajara, Jal



Sensory & Research

Food Science Center

Crete, IL
Gainesville, FL
Markham, ON
Mexico City

Sensory Services

Addison, IL
Bentonville, AR
Gainesville, FL
Markham, ON
Mexico City

Clinical Research

Addison, IL
Mexico City

* Consultancy, Labeling, Training, Auditing, and Digital Tools are each available everywhere in the US, Canada, and Mexico.



SERVICES



CHEMISTRY FOOD TESTING

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MICROBIOLOGY FOOD TESTING

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DIGITAL TOOLS

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AUDITING & TRAINING

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CONSULTANCY & LABELING

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SENSORY & RESEARCH

pg. 11

SOLUTIONS



PRODUCT DEVELOPMENT

Innovate and optimize product shelf life, packaging, environmental and sensory performance



QUALITY MANAGEMENT

Reduce non-conforming products and food waste, and prepare for audits and certification



SOURCING

Monitor suppliers and build a strong supply chain



MARKET SUITABILITY

Check product compliance and validate claims



MANUFACTURING

Ensure an efficient manufacturing process to produce safe food



SUSTAINABLE BUSINESS

Monitor regulations & emerging risks, and ensure responsible and resilient business



CHEMISTRY FOOD TESTING

Our analytical chemistry testing teams bring a deep understanding of nutritional chemistry and current food industry regulatory requirements to your new product development, quality control programs and safety analyses.

Developing an allergen management program?

We can assist in ingredient risk assessment, preventive control plans, and employee training. We can also ship allergen swab kits to help you get started on allergen validation.

Additives

Antioxidants —

BHT , BHA, Gallates, Resveratrol, Isoflavones, Phytosterols

Dyes & Colorants —

Natural, Carotenoids, Beta-Carotene, Lutein, Curcumin, Astaxanthin, Canthaxanthin, Artificial colorings

Preservatives —

Sulfur dioxide, Sorbic acid, Benzoic acid, Parabens, Propionic acid, Acidulants (lactic, citric, tartaric)

Flavors & Sweeteners —

Vanillin, Aspartame, Saccharin, Cyclamate

Other Enhancers —

Phosphates, Glutamates, Propylene glycol, Vanillin, Alcohols, Pimaricin, Natamycin, Nisin, Nucleotides

Mycotoxins

- Aflatoxins
- Fumonisin
- Patulin
- Trichothecenes
- Ochratoxins
- Fumonisin
- Zearalenone
- Vomitoxin (also known as: Don or deoxynivalenol)

Heavy Metals

- Arsenic
- Mercury
- Selenium
- Lead
- Chromium
- Cadmium

Allergen & Contaminants

Allergens

- FDA “Big 9” allergens
- Canadian recognized allergens
- EU regulated allergens
- Gluten-Free testing including fermented/hydrolyzed matrices

Allergen swab kits are available.

Antibiotic & Drug Residues

- Drug residue testing
- Antibiotics, Anti-fungal, Anti-viral, Anti-protozoa, Hormone

Pesticide Residues

- Pesticide Residues
- USDA NOP List
- Natural Health Products Package
- USP 561 List
- Herbicide Screen
- Multi-Residue Screen
- Expanded Multi-Residue Screen

GMO Services

- Comprehensive Qualitative Screening
- Event-Specific Identification
- Marker and Event Quantification
- Non-GMO Project Approved
- Customized Method Development
- Official People's Republic of China Method
- GMO Environmental Testing
- Non-GMO label verification
- Non-GMO/BE surveillance audits



CHEMISTRY FOOD TESTING

Nutritional Testing

Nutrition Label Testing

- Mandatory & Voluntary Nutritional Package
- Label with Nutritional Package
- Calculated Label with Nutritional Package
- Added Sugar calculation
- Alcoholic Drink Nutritional Package
- AAFCO Nutritional Package

Lipids, Fats & Oils

- Fatty Acid Profiles
- Trans Fatty Acids
- Cholesterol
- Omega Fatty Acids
- Free Fatty Acids
- Peroxide Value
- Thiobarbituric Acid (TBA)

Carbohydrates

- Total Dietary Fiber
- Novel Fibers, Crude Fiber, Insoluble Fiber
- Sugar and Sugar Profiles- basic and expanded screens
- Sugar Substitutes and Sugar Alcohols
- Starch

Proteins

- Amino Acid Profiles
- Proteins

Vitamins – Water & Fat Soluble

- A Vitamins – Retinol, Beta-Carotene, Alpha Carotene, Beta-Cryptoxanthin
- B Vitamins – Thiamine (B1), Riboflavin (B2), Niacin (B3), Pantothenic Acid, Pyridoxine(B6), Biotin (B7), Cobalamin (B12), Folic Acid
- C Vitamins – Ascorbic Acid
- D Vitamins – D2, D3
- E Vitamins – Alpha-Tocopherol
- K Vitamins

Minerals

- Calcium
- Iodine
- Iron
- Magnesium
- Phosphorus
- Potassium
- Silicon
- Sodium
- Sulfur
- Trace elements (boron, chromium, cobalt, copper, molybdenum, manganese, nickel, selenium)
- Zinc

Quality and Authenticity

- Authenticity & Food Fraud
- Animal Speciation
- Physicals
- Rancidity Indicators
 - Peroxide Value (PV)
 - p-Anisidine (p-AV)
 - TBA Rancidity
 - Free Fatty Acids (FFA)
 - Oxidative Stability Index (OSI)
- Foreign Particles Identification
 - Microplastics & Nanomaterial identification and characterization
 - Morphological examination for visible and sub-visible particles
 - Elemental Characterization
 - Spectral Identification

TESTIMONY

“Great Service , providing professional and timely information on requested testing needs.”

**-GLOBAL QA MANAGER,
CASUAL DINING COMPANY**



MICROBIOLOGY FOOD TESTING

Mérieux NutriSciences is the industry's leading food microbiology testing partner with 9 out of the top 10 food manufacturers using our trusted services.

Our microbiologists apply their expert understanding of food products and regulatory requirements to perform tests according to standards set by APHA, AFNOR, AOAC, FDA, ISO, and USDA.

Mérieux NutriSciences' experts can help you to isolate and identify common indicator organisms and foodborne pathogens, analyze raw ingredient samples and finished products to guarantee food safety and quality.

Sample Supplies

Supplies are available for sampling, packing, storing, and shipping your samples.

Sample Pick-Ups

Arrange convenient and secure pickup of your samples through our fleet of couriers.

An Extensive Catalog of Qualitative & Quantitative Testing Services

Pathogens and Toxins Testing	Indicators & Industrial Microorganism Testing
<ul style="list-style-type: none"> ■ <i>Listeria monocytogenes</i> ■ <i>Salmonella</i> ■ <i>Legionella pneumophila</i> ■ <i>Escherichia coli</i> STEC including O157 ■ <i>Vibrio</i> spp. ■ <i>Clostridium perfringens</i> ■ <i>Bacillus cereus</i> ■ <i>Cronobacter</i> spp (<i>Enterobacter sakazakii</i>) ■ <i>Campylobacter</i> ■ Enterotoxins ■ <i>Staphylococcus aureus</i> ■ <i>Shigella</i> 	<ul style="list-style-type: none"> ■ Aerobic Plate Count ■ Anaerobic Plate Count ■ Yeast & Mold ■ Total Coliforms and E.coli ■ Mesophilic and Thermophilic Sporeformers ■ Psychrophilic Plate Count ■ Lactic Acid ■ Alicyclobacillus ■ Probiotics
	<p>Indicators</p> <ul style="list-style-type: none"> ■ Acid-resistant microorganisms ■ Fecal contamination indicators ■ Heat-resistant microorganisms ■ Psychotropic microorganisms ■ Spore-forming microorganisms
	<p>Industrial</p> <ul style="list-style-type: none"> ■ <i>Bifidobacteria</i> ■ <i>Lactobacillus delbrueckii</i> subsp. <i>Bulgaricus</i> ■ <i>Lactobacillus casei</i> ■ <i>Lactobacillus rhamnosus</i> ■ <i>Lactobacillus acidophilus</i> ■ <i>Streptococcus thermophilus</i> ■ <i>Saccharomyces cerevisiae</i>

Our expertise in environmental monitoring, pathogen detection, and indicator organisms is second to none. There are numerous pathogen detection platforms available , and we help you find the best option for you.

Additionally, we offer and specialize in:

- Microbial Identification Services
- Environmental Monitoring Program (EMP)
- Virus
- C. Bot



DIGITAL TOOLS

MYMXNS

MyMXNS Customer Portal

Manage your daily food safety & quality with our easy-to-use and reliable Customer Portal.

Because results delivery is key, MyMXNS provides all the information on your sample, from submission to the test results and more.

ENVIROMAP

EnviroMap - Environmental Monitoring Automation

Automate and streamline your environmental monitoring program.

Key Features

- Automated Scheduling
- Automated Mitigations
- Result Mapping
- Reporting & Alerts
- Executive Dashboard
- Activity Tracing

QUALMAP

QualMap - Quality Monitoring Platform

Get a handle on your supplier data with QualMap. QualMap streamlines food safety & quality compliance throughout your entire supply chain.

Key features:

- Specification Compliance
- Specification Management
- Supplier Audit Compliance
- Corrective Action Workflow
- Supplier Database
- Complaint Management
- 3rd Party Data Integration

TESTIMONY

"I like the online system to check the results. That's a great tool. It shows me when particular tests will be completed, so my coworkers can plan shipping/distribution of our products"

— QA SUPERVISOR, INGREDIENTS PRODUCER

Regulatory Compliance Tools



Safety HUD

Monitoring Food Fraud & Safety Alerts worldwide

- Monitoring official agencies in 58 countries and online media
- Search by filters
- Statistics, trends, push alerts



Regulatory Update

Monitor relevant new regulations published in Official Journals in 74 Countries.

Customize your data and target only the markets relevant to you.



Limit Detector

Monitoring Limits of Law in only a few clicks.

An easy-to-use tool to detect your limits and export your products without concerns.



AUDITING & TRAINING

Auditing Services

Our team of highly qualified auditors performs independent third-party and second-party audits to verify your plant's compliance with current regulations and industry practices through program reviews and on-site observations.

- Food Processing Facilities
- Food Safety & GMPs
- Distribution Center Food Safety and GMPs
- Good Laboratory Practices
- Food and Non-Food Packaging Materials
- Customized Proprietary 2nd Party Audits
- Food Safety and Quality Management Systems
- Animal Handling and Welfare
- Storage and Distribution
- Supplier Approval Audits
- Proprietary/Customer Specific Audits
- Consultative audits
- Retail and foodservice inspections
- Non-GMO Verification Audits
- Gluten Free/Allergen Free Audits
- Good Agricultural Practices
- Ethical Audits

Certification Services

Our highly trained auditors perform third-party audits to verify your plant's compliance with current regulations and industry practices. With an average of 15-years experience each, Mérieux NutriSciences globally employs over 100 sector-specific auditors.

Safe Quality Foods (SQF)

- SQFI Ethical Sourcing
- BRC-Food Certification
- BRC-Storage & Distribution
- FSSC 22000
- IFS Food and Logistics
- Gluten-Free Certification

Training Course Options

- Public Courses.
- Custom Online Courses
- Digital Downloads and DVDs

Training When You Need It, How You Need It

The Mérieux NutriSciences' Online Training Academy courses are self-directed and allow you to choose when, where, and how long you can devote to your training. It is an ideal fit for the busy food industry professional.

Learn about our current course offerings at

MERIEUXNUTRISCIENCES.LEARNUPON.COM

TESTIMONY

"We have developed a nice professional relationship and are very pleased with what feels like a partnership"

-QA MANAGER,
BAKERY CHAIN



CONSULTANCY & LABELING

Consulting Services

Our group of 25+ Consultants has expertise and problem solving experience that covers every sector of the Food Industry.

- Microbial Risk Assessment
- Food Safety System Assessment
- Environmental Monitoring Assessment
- FSMA Gap Assessment
- Investigations
- Program Development
- Food Safety Due Diligence Assessment
- Dairy Consulting
- Specification Review and Development
- Toxicology and Proposition 65 Assessments
- Sanitation and Sanitary Design Assessments
- Sustainability Assessments
- Crisis Management
- Process Authority
- Program Development

> *Remote Consulting*

> *Specification Review and Development*

> *Quality Monitoring Program*

> *Raw Material Risk Assessment Program*

Labeling & Regulatory Compliance Services

Composed of Regulatory Compliance Specialists with years of experience, our experts guide clients in generating labels that follow all applicable FDA/USDA/CFIA practices and requirements, insisting all work is checked and peer-reviewed.

Nutrition and Labeling

Labeling Compliance & Nutrition Services include the following and will fit into either the development or review stages of your product.

- Food Label Review
- Food Label Review + Formulation Review
- Nutrition Labeling by Database Analysis
- Ingredient and Allergen Declaration Review & Development
- Label, Nutrient, and Health Claims Review & Development
- Food and Nutrition Labeling Consulting
- AAFCO Label Review
- Supplement & Natural Product Label Review

Menu Labeling Services

Our services begin with a menu review to assess your needs. We can then recommend methods of analysis appropriate for each recipe.

- Menu Labeling by Laboratory Analysis
- Menu Labeling by Calculated Analysis
- Menu Labeling for Special Diets
- Ingredient Statement and Allergen Declaration

Regulatory & Services

Scientific literature holds a wealth of knowledge to support food safety programs. A literature search provides valuable information regarding the potential microbial, chemical, and physical hazards associated with a specific food matrix, technology, process, or environment.

We offer expert information research services for a deep search and review of scientific literature and regulatory information. Our access to hundreds of bibliographic databases and journals allows our research services to go beyond a typical web search. The searches are performed by an information expert with more than 15 years of experience researching scientific literature and North American regulations.



SENSORY & RESEARCH

Sensory & Consumer Insights

We provide R&D staffs, product developers, marketers and sales professionals with insight on how their products will perform in the marketplace throughout our sensory evaluation network. Our sensory evaluation network enables food professionals to:

- Evaluate the quality of your products
- Discover consumer attitudes
- Compare products against competitors
- Identify market gaps and generate new product ideas

Innovative Tool Box

- Descriptive Analysis
- Flavor Profile
- Large-Scale Consumer Panels
- Difference Testing
- Focus Groups
- Specification Creation
- In-home Use Testing (IHUT)
- Consultancy & Education
- Directional Attribute Testing™ (DAT)
- Sensory Shelf Life Studies
- Trained Descriptive Analysis
- Metro Shopping
- Competitive Landscape
- Panel Training
- Qualitative Consumer Assessments (QCA)

Research Services — Food Science Center

Creating the food products of tomorrow starts with the practical application of science today.

Our John H. Silliker Food Science Center We combines our areas of expertise in scientific project management, developing novel protocols and methods, evaluating the efficacy of functional ingredients, and ensuring success for your product in today's marketplace.

- Stability & Shelf Life Studies
- Process Validation
- Surrogate Kits
- Challenge Studies
- Virus (Hep A, Norovirus)
- Microbial ID & Characterization
- Cyclospora
- Clostridium botulinum

TESTIMONY

"We are very appreciative of the prompt service we receive from Mérieux NutriSciences whenever we submit samples. The turnaround time is excellent and staff are always very pleasant and quick in responding to emails"

— **QUALITY ASSURANCE TECHNICIAN**
PRODUCTION COMPANY

This is our commitment to you:

We care for you.

We care by asking the right questions and gathering the right team of experts who understand your specific needs, your market, your legal environment, and your chain of value.

We care by working alongside you to come up with innovative and practical solutions that make sense for your business.

We are local with a global reach.

We are local - where you are,. Being close to you allows us to assist you locally in your daily operation and provide quick and reliable results.

We are global - with a network of over 100 laboratories worldwide, we support your global ambitions while ensuring you get rapid, reliable, repeatable and impartial results from one location to another.

We have no compromise on quality.

We have consistent and reliable results with shared methods all over the world:

- A unified quality management system accredited under ISO 17025.
- Full sample-to-result traceability.
- A multi-step competency program to ensure consistency between all labs.
- Active participation in several respected food laboratory proficiency programs.

We live science.

We live science by hiring experts and high degree scientists who are well-versed in multi-faceted areas. With them, we are where the action is - participating in many research programs and trade organizations, such as AOAC, ILSI, GFSI and many more, to shape and advance the scientific knowledge of our community.



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