

food safety



Your brand is everything

Dairy testing solutions

ThermoFisher
SCIENTIFIC



Thermo Fisher Scientific is the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer.

Through our premier brands such as Thermo Scientific we help customers accelerate innovation and enhance productivity.

Thermo Fisher Scientific supplies innovative solutions for the world's food and beverage industry. With applications that span the food production process – from analysis of starting ingredients, optimisation of manufacturing process and quality check of the final product – we provide a broad range of products and services including microbiology tests, chemical analysis, physical characterisation, product inspection and more.

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One source for expertise, collaboration, trust and support

The dairy industry across Australia and New Zealand is a mature but growing market. Dairy sales are expected to outperform most other food categories in the next five years, with the export market contributing a major percentage to this growth.

Dairy manufacturers are well placed to profit from this projected growth, especially when equipped with efficient and robust testing equipment that can support this increasing demand whilst maintaining product and brand integrity.

At Thermo Fisher Scientific, we offer a suite of testing solutions that can help dairy manufacturers at every step of production. From animal diagnostics for herd health, to milk collection, reception and transport tests, to the latest molecular testing solutions that help to ensure ISO and HACCAP regulations are met.

Throughout this brochure you will find solutions that cater for a range of budgets and throughput volumes. Talk to one of our experts today about our unique solutions that can support your dairy technology needs. Our best-in-class product and service solutions enable you to maintain your focus where it should be— on delivering food and beverage products that meet the highest standards of food quality, safety, and authenticity that today's consumers expect.

Rapid results

Fast and reliable test results to enable delivery of consistently high quality products in large volumes.

Reduced costs

Through our trusted supplier partnerships, we offer a large selection of innovative products allowing purchasing convenience and reduced costs through one source.

Drive productivity

Our products, services, training solutions and technical experts can enable smarter and more efficient productive plant environments.

Latest technology

Trust products developed by experts in design, performance and usability to help you meet standards expected by regulators like HACCP, ISO, BRC, NATA.



The dairy scoop



40% demand from China



“Food consumption will grow by 75% between 2007 and 2050, with 40% of the demand coming from China, according to the Australian Trade Commission. At the same time, more than 500,000 food safety violations were discovered by Chinese authorities in the first nine months of 2016.”

Mergent 2017 Report, Asia-Pacific Food & Beverage Sectors

Collaboration is key



“The 2018 period is likely to witness stronger collaborations between the food industry, regulators, and the scientific community to address the emerging complex food safety threats.”

Frost & Sullivan, 2017 Report. Asia-Pacific Mass Spectrometry Market Outlook, 2017 and 2018.

Listeria



“*Listeria monocytogenes* was the microorganism most commonly associated with microbial food recalls in Australia from 1 January 2007 to 31 December 2016. And dairy was the second highest food group recalled due to this dangerous pathogen (within the same ten year period).”

Food Standards Australia and New Zealand, FSANZ, 2017

It’s a foreign matter



“18% off all food recalls in Australia and New Zealand from 1 January 2007 to 31 December 2016 were due to foreign objects found in food. The most common types of foreign matter found in food were metal (33%), plastic (30%) and glass (24%).”

Food Standards Australia and New Zealand, FSANZ, 2017

Innovative technologies for food authenticity testing

With a growing export market for ANZ and the globalisation of the food industry overall, food fraud is an emerging threat to consumer trust. We have a number of innovative technologies for food authenticity testing including, Isotope Ratio Mass Spectrometry, molecular spectroscopy solutions (NIR, FTIR & Raman), Meat Species PCR Testing Kits and more.

Enabling the highest food safety standards

When collaboration counts, we offer one source of endless possibilities. Our broad portfolio of products encompasses the most respected global leading brands as well as our own brands. High-quality plasticware, glassware and supplies designed to perform perfectly in demanding laboratory environments. Trust products developed by experts in designing for performance, usability and cost-effectiveness.

Rapid Food Pathogen Detection

In a world where fast and accurate testing results can make or break a brand, performing pathogen tests confidently is paramount. We offer a range of tests designed to quickly and accurately detect foodborne pathogens within a few hours or overnight. The range includes market-leading molecular instrumentation, sample preparation, and proven PCR technology.

Protect your brand with our state-of-the-art product inspection technology

Rest assured you can protect your brand and still increase your bottom line with the Thermo Scientific™ range of product inspection instrumentation. From the consistent accuracy of our checkweighers, to the sensitivity of our metal detectors and the detection performance of our X-ray systems, we are committed to helping you eliminate errors and ensure the integrity of your brand.

Your trusted scientific partner at every step of production

Consumer

Quality Control

- Microbiology and molecular
- Physical characterisation (colour, viscosity, density, sieving)
- Compositional analysis (fat, protein, total solids)
- Chemical analysis (vitamin, protein, mineral analysis)

Packaging In line / At line

- Foreign body detection (stone, metal, glass)
- Checkweighers
- Wet chemistry

Waste management

- Water purification
- Sterilisation (liquids and solids)
- Air / odour purification

Laboratory

- Microbiology and molecular tests
- Antibiotics
- Sediment / foreign particles
- Bulk Milk Cell Counting (BMCC)
- Direct Microscopic Counting (DMC)
- Acidity/ pH
- Sterilisation
- Food allergens
- Aflatoxin testing
- Compositional analysis (fat, protein, total solids)
- Fatty acid profiling
- Protein analysis (A1/A2)
- Chemical analysis (vitamin, protein, mineral analysis)
- Pesticide and residue analysis

Field

- Veterinary diagnostics
- Genetic improvements (GMO, plant and animal genotyping)

Dairy Farm

- Antibiotics
- Temperature
- Flow and pressure
- Antibiotic residue test kits

Transport

- Temperature
- Data loggers
- Sample containers

Processing

- Microbiological and molecular
- Moisture content
- Acidity / pH
- Flow and pressure
- Water analysis

- Oligosaccharides
- Homogenisation
- Phosphatase
- Phage
- Environmental and hygiene monitoring (air and surface sampling)



Field

Our animal health solutions have been at the forefront in farm animal diagnostics for more than 20 years. We offer dependable chemistry, flexible platforms and government-licensed testing solutions that you can trust to perform rapidly and accurately. We understand that laboratory professionals and veterinarians need fast, precise answers to secure the health of a herd.

Veterinary Diagnostics

Timely diagnosis of just one sick animal can save an entire herd and preserve the livelihood of the producer. Our solutions allow customers to better monitor and control economically significant farm animal diseases, such as bovine viral diarrhea, bovine tuberculosis or Trichomoniasis.

- Certified diagnostics for reportable diseases
- Optimised workflows
- Pre-export tests
- Validated diagnostic tests (serology and molecular)

Genetic improvements

Thermo Fisher Scientific is committed to providing instruments, reagents, and solutions for plant and animal genotyping applications: simple, scalable, and affordable next-generation solutions that will help drive remarkable agricultural innovations. These solutions enable producers to develop healthier, more efficient crops and livestock to help nourish the world's growing population.

- GMO testing and detection
- Microarray technology
- Next-generation Sequencing
- Plant and animal de novo sequencing
- Plant and animal gene expression analysis
- Plant and animal genotyping
- Plant cell and tissue analysis
- QTL mapping and marker-assisted selection
- Real-Time PCR
- Sample preparation and nucleic acid isolation
- Synthetic biology and genetic engineering

Dairy farm

Thermo Fisher Scientific offer a number of solutions to help manage the safety and quality of raw material during the milking process. By ensuring the quality and safety of raw materials you can yield superior and consistent end products that will drive your bottom line.

- Antibody test kits
- Infrared guns (temperature testing)
- Flow and pressure sensors
- Antibiotic residue test kits

Transport

We offer a number of solutions that ensure the security and safety of dairy product during transit. These tests can be used at any transportation point; on raw milk tankers, samples to the lab or on final products from the production plant to retail stores.

- Antibody test kits
- Infrared guns (temperature testing)
- Dataloggers
- Sample containers and vials



Processing

A production facility poses many contamination risks, and these can be biological, chemical or physical. The suite of products that we offer not only provide more security against possible contaminations but help to identify the source so you can eliminate these risks and improve operational efficiency and therefore increase profitability. These tests can be performed both on-site and in the laboratory.

- Microbiological and molecular
- Moisture content
- Acidity / pH
- Flow and pressure
- Water analysis
- Oligos
- Homogenisation
- Phosphatase
- Phage
- Environmental and hygiene monitoring (air and surface sampling)

Laboratory

Sample preparation and general labware

Thermo Fisher Scientific offers a wide range of sample preparation solutions and general laboratory supplies that meet the highest standards of quality and performance required to enable safe food procedures.

- Autoclaves
- Balances
- Centrifugation and consumables
- Chemicals, disinfectants, solvents and reagents
- Dilutors
- Filtration (membrane)
- Fridges and freezers
- Fume cabinets
- Furnaces
- General plasticware, glassware, reagents and consumables
- Heating, drying and vacuum ovens
- Homogenisers
- Hotplates, stirrers, mixers, shakers and plate readers
- Incubators
- Lab Information Management Systems (LIMS)
- pH, conductivity, dissolved oxygen and temperature meters (bench, handheld and online)
- Pipettes and liquid handling
- Pumps
- Sample collection
- Sample enrichment
- NATA accredited temperature testers (general and infrared gun)
- Waterbaths
- Water purification
- Wireless monitoring devices

Biological tests

Thermo Fisher Scientific is at the forefront of food safety technology. We offer market-leading molecular and microbiological instrumentation and diagnostics kits that can quickly identify unknown materials and contaminants that can effect product quality.

- Air samplers
- Allergen test kits
- ATP environmental monitors
- Autoclaves
- Automated microbiology testers
- Automated plate inoculators
- Cell counters
- Colony counters (manual and automated)
- Culture products
- Dilutors
- Dip slides
- Environmental chambers
- Environmental contact and settle plates
- Flow cytometry
- GMO PCR test kits
- Immunoassay tests
- Incubators
- Media and diluents
- Media pumps
- Microplate readers and washers
- Nucleic acid purification
- Pathogen Detection and Identification
- Quality control organisms
- Real-time PCR and PCR
- Spectrophotometers
- Swabs

Chemical tests

We offer a variety of resources to help you keep pace with today's demands for accuracy in the labeling of food products, particularly with respect to authenticity of food ingredients, their origins, and nutritional content.

- Automated sample preparation
- Chromatography consumables
- Colorimetric, enzymatic and electrochemical measurements
- Discrete photometry
- Dissolved oxygen, conductivity and pH meters (bench, handheld and online)
- Dumas analysers
- Gas Chromatography (GC-MS)
- Inorganic Mass Spectrometry (IRMS)
- Ion Chromatography (IC)
- Kjeldahl digestion kits
- Liquid Chromatography (LC-MS, HPLC and UHPLC Systems)
- Molecular spectroscopy (FTIR, NIR, UV/Vis, NMR and Raman)
- Software solutions
- Trace elemental systems (ICP-MS)
- Wet chemical analysis

Packaging

Detecting physical contaminants in food, such as metal, glass, stone, plastic and bone is like trying to find a needle in a haystack, especially when the contaminant may be as small as 1mm in diameter. Our accurate and reliable metal detectors and X-ray detection systems provide the highest sensitivity so you can find virtually any metallic and non-metallic substance in your packaged food.

Similarly, controlling underfill and overfill in your packaged food helps you to not only meet legal requirements but protect your brand and your profits. Our checkweighers provide accurate and reliable in-motion weighing and can be customised to your specific business needs.

We also offer a number of safety and security monitoring solutions for employees and workplace environments.

- Checkweighers
- Fourier Transform-Infrared Spectroscopy (FTIR) technology
- Handheld X-ray Fluorescence (HHXRF) analyser technology
- Lone worker devices
- Metal detectors
- Non-contact level and temperature measurement
- Personal protective equipment (apparel, gloves, controlled environments)
- Steam and Clean In Place (CIP) flow measurement
- Temperature, humidity, air quality, flow and pressure monitoring
- X-ray detection systems

Quality control

Contamination and testing can occur at any point along the food chain, from feed and fertiliser, food production and processing. Quality Control (QC) of final products are critical as they are the last check before products reach retail stores and consumers.

We offer a number of products that can be used in the lab during product development and testing, but also at final QC to ensure that all products that leave production are the highest quality and reflect what's on the label which is the key to maintaining product and brand integrity.

Physical characterisation tests

Consumer acceptance of new food products depends on properties such as mouthfeel, pourability, spreadability, and shelf life. We offer a variety of food rheology and food extrusion instruments for food development and processing applications.

- Colour measuring instruments (liquid and solid samples)
- Density meters (liquid and solid samples)
- Extrusion and compounding products
- Flow cytometry
- Near Infrared (NIR) technology
- Polarimeters and saccharimeters
- Chambers (product stability, humidity, temperature and time)
- Refractometers (bench, handheld and online)
- Viscometers (rotational and falling ball, plus calibration standards and measuring accessories)
- Sieving equipment
- Turbidimeters (bench, handheld and online)
- Water activity meters
- Filtration equipment



Waste management

Water and product waste from industry and agriculture can carry a variety of toxic pollutants, including heavy metals and organic toxins, which can be discharged into the environment where they are harmful to ecosystems and human health. We offer a range of solutions to assist with responsible disposal of industry waste.

- Chemical Oxygen Demand (COD) analysers
- Chlorine monitors
- Dissolved oxygen, conductivity and pH meters (bench, handheld and online)
- Environmental monitoring (water purification and sterilisation)
- Nutrient analysers
- Odour monitors
- Phosphate analysers
- Total Organic Carbon (TOC) analysers



Brands we represent

Thermo Fisher Scientific Brands



Locally Manufactured Product Brands



Trusted Supplier Partner Brands

- 3M™
- Azlon
- Bellingham + Stanley
- Blackline Safety
- Brookfield
- Cole-Parmer
- ELISA Systems
- Endecotts
- Fungilab
- Funke Gerber
- Grant Instruments
- GE Druck
- Glassco
- Greiner Bio-one
- Honeywell
- Hygiena™ BAX®
- IDEXX
- In-Situ
- Interscience
- IUL Instruments
- JET BIOFIL®
- Kimble Chase®
- Konica Minolta
- Lab Systems
- Lovibond®
- Merck Millipore
- Nasco
- Novasina
- Sartorius
- SCHMIDT + HAENSCH
- Seward
- Terumo
- Testo
- Velp Scientifica
- Whatman®
- Wouters NV

Trusted Brands

- ACROS Organics™
- FisherChemical™
- Thermo Scientific™ Dionex™
- Thermo Scientific™ Eutech™
- Thermo Scientific™ Heratherm™
- Thermo Scientific™ Oxoid™
- Thermo Scientific™ Molecular BioProducts™
- Thermo Scientific™ Nalgene™

Products and brands may vary by country, please enquire.



In Australia:

For customer service, call 1300-735-292

To fax an order, use 1800-067-639

To email an order, ordersau@thermofisher.com

Find out more at

thermofisher.com.au/foodandbeverage

In New Zealand:

For customer service, call 0800-933-966

To fax an order, use 0800-329-246

To email an order, ordersnz@thermofisher.com

Find out more at

thermofisher.co.nz/foodandbeverage

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