



ALTERNATIVE PROTEIN AND PLANT-BASED TESTING SOLUTIONS

Technology You Can Trust. Expertise You Can Count On.

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Sustainable Food Solutions

The development of plant-based and alternative protein food products helps meet the growing need around the world for nutritious, sustainable foods. But these novel foods can be challenging to develop and manufacture. R&D and formulators must not only identify ingredients with the nutritional and functional properties needed to create the products, but they have to make them palatable. And once they have a reproducible formulation, there's the challenge of scaling up production.

Plant-based and alternative protein ingredients in these new products undergo many storing, cooking, and packaging processes that can affect their performance along the way. So, producers like you need advanced analytical solutions to help produce the safe, high-quality animal-free foods your customers are hungry for.

From R&D and formulation to consumer-ready foods, we're here with you, helping drive innovation in the plant-based food market.



R&D and Formulation: New Approaches for Sustainable Food

In today's constantly evolving food market, producing consistent, top-quality plant-based and alternative protein foods is the foundational goal for processors. And that requires a commitment to product design, development, and manufacturing.

Strong quality-control procedures can help you understand the many variables that affect new products during development. For this kind of quality monitoring, you need a powerful solution that provides insights into functional and sensory properties – plus expert support in product development to help fully implement your findings.

Ingredient Performance Analyzer

RVA 4800 Rapid Visco™ Analyser

Reduce time to market for new products, ensure performance and production consistency, reformulate quickly and easily, and baseline ingredient performance before scale-up: with our **RVA 4800 Rapid Visco Analyser**, you can do all that and more.

The RVA 4800 characterizes performance by subjecting a sample to programable, reproducible temperature and shear conditions and measures a sample's response to changing conditions. It combines a wide viscosity range and exceptional sensitivity and accuracy, and it can accommodate temperatures up to 140 °C. This makes it perfect for analysis of starches and hydrocolloids; for ultra high-temperature pasteurization; and for retorting, pressure cooking, extrusion, and other processing conditions.

What's more, it provides robust methods to monitor batches, formulations, and processing conditions – and it stores methodologies to ensure reliable, repeatable procedures and easy-to-interpret, user-independent results.



Ingredient Screening: Understanding What Goes in Your Products

Key sources of plant-based foods include peas, soy products, lentils, oats, nuts, vegetables, and algae. These raw ingredients should be high-quality, safe and perform as intended in finished products. Proper screening helps you reject bad ingredients and plan production, reducing material waste, energy use, and labor while increasing production uptime.

Our industry-leading instruments and methods provide fast, reliable information on important parameters such as proximates, functionality, nutrition, and safety – so you can make better-informed decisions regarding the ingredients that go into your products.

Solutions for Ingredient Screening

Aquamatic™ 5200 Grain Moisture Meter

This 149-MHz, UGMA-compliant instrument measures moisture, temperature, and test weight/hectoliter weight in 10 seconds in whole grains, beans, peas, and more.



RVA 4800 Rapid Visco™ Analyser

This performance analyzer with programmable temperature and variable shear capability is designed to test performance characteristics of plant-based ingredients to ensure quality, keep unsatisfactory ingredients out of production, and reduce downstream waste.



Inframatic™ 9500 Whole-Grain NIR

Analyzes a wide range of grains, oilseeds, and pulses for moisture, protein, oil, and more in less than 30 seconds. Approved for official trade use in multiple countries.



AuroFlow™ AQ Afla Strip Test

These lateral flow test kits screen ingredients for mycotoxins quickly and easily, following an environmentally friendly water-based extraction method.



Ingredient Processing: Food Production in Progress

Milling, fractionation, extraction, and fermentation create ingredients that go into great-tasting, nutritious, high-quality plant-based and alternative-protein foods. Processors need to monitor the various processes to ensure they perform as intended, contain the required nutrition, and must do so in the most economical way possible.

Solutions for Process Monitoring

RVA 4800 Rapid Visco™ Analyser

The RVA 4800 can test in-process samples to monitor starch and protein functionality as it changes over time.



DA 7350™ In-Line Process Analyzer with Camera

Performs real-time, continuous, multiconstituent measurements of products in a processing line. It can be fully integrated into plant control systems for process monitoring and control.



DA 7250™ At-Line Monitor

Accurately analyzes samples in only six seconds with little or no sample prep. It measures ingredients for moisture, protein, fat, fiber, starch, and more.



DA 7440™ On-Line Process Analyzer

Performs real-time, continuous, multiconstituent measurements of products over a processing line. It can be fully integrated into plant control systems for process monitoring and control.



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Finished Ingredients and Ready-To-Eat Foods

Whether you produce the ingredients that go into plant-based food or consumer-ready foods, product quality and safety are paramount.

Our robust testing solutions enable ingredient and food processors to improve consistency and ensure that their products meet performance, safety, and nutritional targets.

Solutions for Finished Products

RVA 4800 Rapid Visco™ Analyser

Ensure consistent performance of plant-based and alternative protein to help your customers produce finished products with minimal reformulation or process adjustment, while reducing waste.



DA 7250™ Diode Array-Based NIR

A wide variety of food products, including yogurt, extruded snacks, pastas, burgers, and more, can be measured in only six seconds for moisture, protein, fat, and other parameters.



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Finished Ingredients and Ready-To-Eat Foods

More Solutions

LactoScope™ FTA Liquid Analyzer

Test plant-based liquids for moisture/total solids, fat, protein, and more. Use it to blend and test final products for quality and nutrition.



GC 2400™ Platform

For qualitative and quantitative analysis of ingredients and food composition, additives, flavor and aroma components, and contaminants such as pesticides, natural toxins, veterinary drugs, and packaging material.



Avio® 220 Max ICP-OES

As the recognized leader in inorganic analysis, we have solutions for testing ingredients or final products. Our ICP-OES provides rapid analysis of important trace minerals and metals in one run – perfect for high-throughput multielemental analyses, from high ppm to ppb ranges.



Finished Ingredients and Ready-To-Eat Foods

More Solutions

QSight® LC/MS/MS System

Offers sensitivity, selectivity, and specificity for determination of contaminants at trace levels, including pesticides, natural toxins, amino acids, and fatty acid profiles. The StayClean™ self-cleaning technology significantly improves instrument uptime.



LC 300™ HPLC/UHPLC Systems

Unparalleled ease of use for testing vitamins, pesticide residues, mycotoxins, sugars, and more, with customizable workflows. Consumables kits simplify instrument operation and reduce risk of errors during sample preparation and analysis.



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Support, How and When You Need It

Today's lab managers face a variety of challenges, from tighter schedules to increased workloads and budget control to teams with varying levels of familiarity with lab equipment.

We help you overcome the obstacles to your success.

OneSource® Laboratory Services offers scalable and flexible options for labs of all sizes, for PerkinElmer and non-PerkinElmer equipment. From service contracts and performance maintenance, compliance qualification and validation, training, descriptive analytics and interactive dashboards to asset management and comprehensive concierge laboratory services.

Explore what suits you best.



Our Capabilities At Glance

Plant-based and Alternative Protein Testing	Falling Number	Glutomatic	AM 5200	IM 8800	IM 9500	DA 7250	DA 7350	DA 7440	RVA 4800	doughLAB	AuroFlow AQ LF	MaxSignal ELISA	PinAAcle AAS	Avio 220 Max ICP-OES	NexION ICP-MS	LC 300 HPLC & UHPLC System	GC 2400	QSight LC/MS/MS	Pathogen Detection Assays
Amino Acids						■										■		■	
Ash					■	■	■												
E. Coli																			■
Falling Number	■																		
Fatty Acids						■										■	■	■	
Fiber						■	■	■											
Gluten Quality		■																	
Ingredient Performance									■	■									
In-line Monitoring							■	■											
Listeria																			■
Minerals/Heavy Metals													■	■	■				
Moisture			■	■	■	■	■	■											
Mycotoxins											■	■				■		■	
Oils				■	■	■	■	■						■			■	■	
Pathogens																			■
Pesticides																■	■	■	
Protein				■	■	■	■	■								■		■	
Rheology	■	■							■	■									
Salmonella																			■
Starch					■	■	■	■	■							■			


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Industry-Leading Solutions to Meet All Your Quality and Safety Requirements


We're the leading global provider of end-to-end solutions for plant-based and alternative protein testing. Our advanced technology, vast range of trusted instruments and unparalleled testing expertise enable you to gain complete knowledge of ingredients and final-product quality and safety at every step of the production process.

Our highly-qualified experts are committed to designing solutions that help you make smarter business decisions, improve efficiency and profitability, and protect your brand equity – while meeting customer expectations.


What Sets Us Apart



Solutions across the entire supply and production chain




Global knowledge, local expertise, and dedicated technical support




Robust, easy-to-use, reliable instruments



Process monitoring and remote connectivity



Rapid, repeatable, and accurate results



Software, service, and support



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Useful Resources

Our white papers, webinars, and application notes provide valuable insights on how to overcome quality and safety challenges when producing plant-based and alternative protein foods.





For more information visit



www.perkinelmer.com/plantbasedfood



www.perkinelmer.com/food-linkedln



www.perkinelmer.com/contactus

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