

Unique hygiene verification product offers new alternative

In order to protect food products from contamination, regular monitoring is required to check for food spoilage micro-organisms and food poisoning pathogens. To date food hygiene testing has been done using either ATP monitoring or the more traditional TVC assessment.

christeynsfoodhygiene.co.uk

Christeyns Food Hygiene are now able to bring to market a new option for surface testing, released earlier this year in the UK and Ireland and already in use with some food manufacturing companies.

FreshCheck, a patented formulation, is a unique hygiene verification test that reveals the presence of viable bacterial populations and organic soiling on food contact and preparation surfaces in a matter of seconds via a colour-change method.

Tested by Campden BRI, FreshCheck has proven to be

effective at revealing the presence of low levels of both pathogenic and spoilage bacteria including *Listeria monocytogenes* and *Salmonella typhimurium*. It takes 30 seconds to provide a qualitative presence (or absence) of contamination, covering a 5 x 5cm area in one spray.

Ichiban UK, a Suffolk based leading producer of Sushi in the UK retail market, is an early adopter of new technology that benefits the quality and safety of their products.

"FreshCheck is a novel, innovative and user-friendly way for hygiene professionals to instantly verify the effectiveness of the cleaning regime as well as being an ideal tool for training hygiene operatives in the areas they need to focus on," comments Ichiban Site Manager, Jon Day.

With its ease of use, rapid qualitative identification of bacterial populations and a low cost per test, FreshCheck offers a new alternative in the management and control of bacterial food safety.



Rapid detection, monitoring and identification solutions

Hygiena delivers rapid microbial detection, monitoring, and identification solutions to a wide range of industries, including food beverage and hospitality.

hygiena.com

Utilising advanced technologies and patented designs, Hygiena provides industry-leading ATP monitoring systems, PCR-based pathogen detection and characterisation systems, allergen tests, environmental collection devices, and more.

Hygiena is committed to the mission of providing customers with high-quality innovative technologies that are easy-to-use and reliable, backed by excellent customer service and support.

Their EnSURE monitoring

system measures ATP, TPC, EB, coliform, E. coli, alkaline phosphatase and allergen prevention swab tests.

Headquartered in Camarillo, California with offices in Wilmington, Delaware, the UK and China, and over 80 distributors in more than 100 countries worldwide, Hygiena products span the globe.



Monitoring solutions can stop temperatures rising in supply chain

Keeping tabs on storage conditions is essential to meet government legislation, but manual checks or data loggers only provide a retrospective view.

Now businesses can take advantage of British-engineered wireless monitoring solutions that provide real-time data and early warnings of potentially damaging environmental fluctuations.

hanwell.com

Food hygiene laws are strictly enforced in the UK and food businesses of all types must comply with BRC, HACCP, FSA and ISO 2200.

Monitoring storage conditions every minute, 24/7, 365 days a year provides an extra layer of protection for food products. Having well-documented records and data on

how storage equipment is performing over a continuous period of time is a significant advantage that can save time, costs and reputation.

Hanwell IceSpy is a premium yet affordable wireless temperature monitoring system that leads the way in reliability, robustness and innovative technology, based on 25 years of engineering expertise. The solution brings pinpoint accuracy, cold-chain solutions and radio strength that overcomes almost every application challenge.

Hanwell IceSpy provides genuine, tangible benefits to almost any food chain application. It is undoubtedly a more efficient and effective way of potentially reducing waste, freeing up staff time and creating a paperless, centralised and continuous monitoring process.

Easy-to-use rapid tests for gluten and other allergens

Since 2011, Emport LLC has offered a range of easy-to-use rapid tests for gluten and other allergens – along with comprehensive training and support to ensure you maximise your food safety budget and minimise your risk of recall.

emportllc.com

Their allergen detection products include:

- AOAC-validated GlutenTox Pro, for foods and surfaces.
- Additional gluten detection kits for complex matrices or surfaces only.
- Full AlerTox Sticks line with nine common allergens including total milk, fish, crustacean, peanut etc.

- Additional allergen detection kits, both LFD and ELISA, for 24+ allergens.

Emport also offer complementary products including swabs for general protein, ATP and A3, sampling consumables like sponges and bags, and ISO17025 accredited laboratory analysis for allergens, pathogens and more.





Tackling cross-contact (vegan and free-from) with innovative tests

The UK food industry has a heightened interest in improving testing to identify and prevent contamination following proposed changes in regulations (for example, prepacked foods for direct sale), the latest versions of the GFSI standards and the rapid growth in vegan and free-from foods.

biocheck.uk

The concept of an 'analytical toolbox' is not new, though it is one Bio-Check (UK) has embraced by providing different types of tests. It has developed tests to improve and extend the capabilities of testing for gluten, meat species and food allergens.

Using its FlowThrough technology, innovative swab tests have been

developed to verify cleaning; detecting raw meat and gluten residues on surfaces within just a few minutes.

The FlowThrough range also includes tests for food samples; detecting raw meat species (cow, horse, pig, poultry and sheep) and gluten (using the R5 antibody).

These tests are an excellent choice for real-time verification of meat supplies and of cleaning (for example at changeovers).

An extensive range of laboratory ELISA methods for the detection of gluten, food allergens and meat species are also offered.

Bio-Check's specialist test kit capability, combined with many years' experience in food analysis, enables them to advise the industry on the best choice of methods.

Reliable fat content analysis and production efficiencies

NDC Technologies, a leading global provider of precision measurement and process control solutions, sees a growing trend among the industry's leading meat processors for reliable meat fat content analysis of their blended batches of hamburger and supermarket ground meat portions to ensure they meet specified quality values.

ndc.com/meat

Meat processors use NDC's InfraLab e-Series at-line analyser to accurately and reliably measure the fat, moisture, protein and collagen content in meat samples. Suitable for beef, lamb, pork and poultry applications, this near-infrared (NIR) measurement system analyses product parameters in less than five seconds while next to the production line.

The InfraLab e-Series uses non-contact, multi-wavelength NIR

technology to capture accurate and consistent measurements, completely independent of product and ambient changes in the process area such as temperature, relative humidity and factory lighting.

These advantages enable meat processors to achieve a number of bottom-line benefits such as producing consistent product quality, optimising batch fat values, reducing lean giveaway, speeding batch release, improving traceability and replacing laboratory testing.



Manufacture safer food, while ensuring strong compliance

Novolyze is a food safety company. Their mission is to develop and commercialise innovative technologies to help the food industry manufacture safer food, while ensuring strong compliance with international food safety and quality standards.

novolyze.com

Their innovative approach to food safety relies on the utilisation of cutting-edge microbiology solutions, combined with the latest developments in digital, IoT and machine learning.

Their range of biological indicators, SurroNov, has received multiple food safety innovation awards for its capacity to streamline process validation/verification work and ensure the safety of processed foods.

SurroNov is the first range of dried, ready-to-use surrogate bacteria to challenge preventive controls for pathogens in industrial conditions.

Their digital offer, 'FoodSafety-Guardian', is the first plug and play platform to manage preventive controls for pathogens in real time.

It offers an 'all-in-one' solution, combining real-time data collection and cloud-based analytical services, to manage process and sanitation controls, with benefits in validation/verification, workflow automation and parameter optimisation.



Powerful DNA technique offers enhanced accuracy

Advanced Microbial Profiling (AMP) is a powerful DNA technique used to determine the unique mix of the micro-organisms (microbiome) in a food sample without needing to culture them in a laboratory.

campdenbri.co.uk

When compared to traditional culturing, AMP offers a different way to investigate the microflora in a food product.

By showing 'everything that is there' – not just those microbes that can be cultured – it can give more accurate data when comparing and monitoring the proportions of individual species. The potential of this technology is only just being discovered.

However, applications can include, for example, tracking the microflora of red meat as it matures to examine the relationship between organisms detailed in a specification and the profile present on the meat itself.

Researchers are looking at other ways that AMP can be applied to the

food industry. Campden BRI is using AMP to re-evaluate microbial specifications for a range of chilled products.

They are currently using it on smoked salmon to identify the microbial population changes that occur with the growth of *Listeria monocytogenes*.

Understanding the effect that naturally occurring microflora have on the growth of pathogenic microflora may potentially extend the shelf-life of products.



Options for

Sorting out the details of your daily laboratory challenges

Nourishing the world in the 21st century requires new ideas – from drought-tolerant crops with high protein yields to streamlined processes in food production and quality control.

Nurturing ideas to grown-up solutions requires determination, passion and excellent tools.

eppendorf.com/food

Eppendorf's tools for the laboratory have been among the finest and best for more than 60 years. They can sort out the details of your daily laboratory challenges – so you have the peace of mind to focus on the science of the food of tomorrow.

Food analysis and food quality control require reproducible workflows-in every detail. Only the best laboratory products give you

the confidence in the data you need. Heating, cooling, pipetting – everything can have an influence on the quality of your results. These results can make a big difference for food producers, consumers or public health officers. Eppendorf can help you in achieving outstanding results.



Expanding portfolio of rapid test solutions for food allergens

Romer Labs is expanding its AgraStrip allergen testing portfolio, already the largest commercially available line, with the AgraStrip Coconut kit, which detects coconut in foods, beverages and rinse waters and on surfaces at an LOD of 10ppm coconut.

romer.com

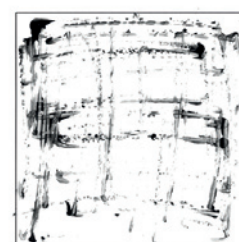
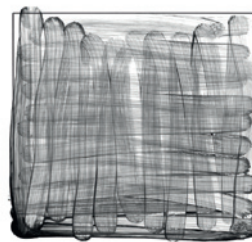
All AgraStrip allergen test kits share the same extraction procedure, ensuring a convenient and streamlined workflow.

The test kit brings a much-needed solution to food producers looking either to prevent coconut contamination or to inform their consumers with accurate labelling regarding coconut content.

The kits are highly sensitive immunochromatographic LFDs designed for the detection of coconut in foods and beverages and for the validation and monitoring of cleaning procedures by testing rinse waters and environmental swab samples. Though relatively rare, all documented cases of coconut allergy have manifested as anaphylactic reactions, which can be lethal when not promptly treated.

Thanks to its inclusion as a 'tree nut' in the 'Big 8' list of food allergens, coconut is gaining in awareness as a significant food allergen. It is a very versatile ingredient, appearing in foods in the form of coconut water, coconut milk and powder, coconut cream and fresh and dried coconut meat or flour.

The AgraStrip Coconut kit has the same advantages that customers have come to expect from the AgraStrip line: a very fast time-to-result of 11 minutes including extraction, stability at room temperature, a long shelf life and at 10ppm coconut one of the lowest LODs around.



Left, AccuPoint Advanced ATP surface sampler pattern and, right, a traditional ATP surface swab pattern.

Your trusted hygiene partner to protect brand integrity

Hygiene monitoring is at the core of every food safety programme. With a growing global population that consistently demands more, higher quality food, the importance of hygiene monitoring will only increase.

foodsafety.neogen.com

A good hygiene monitoring programme can highlight problems before products are manufactured. Stopping these issues early not only protects public health, but also protects brand integrity. The AccuPoint Advanced ATP Monitoring System validates the effectiveness of your hygiene programme by

detecting food residues and micro-organisms present on surfaces and in liquids by measuring the amount of adenosine triphosphate (ATP) present. AccuPoint Advanced is the first hygiene monitoring system rigorously tested and validated by AOAC as an AOAC Performance Tested Method. This certification follows a successful comparison study conducted by NSF International. Their three colour-coded samplers with liquid-stable chemistry are unrivalled in their accurate recovery of ATP from surfaces and rinse waters. Unlike traditional swabs, their samplers cover a larger surface area to extract ATP more consistently.

Proficiency testing scheme in food microbiology

Animal Société Aliment (ASA) is a non-profit organisation which takes part in public health relating to animals, their environment and their production.

asa-spv.asso.fr

In addition to publishing AsaDia, a reference atlas of lesions encountered in fresh meat during post mortem inspection, ASA has been organising a proficiency testing scheme in food microbiology: RAEMA (Réseau d'Analyses et d'Echanges en Microbiologie des Aliments).

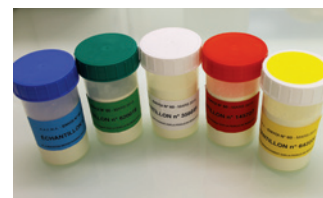
As a provider, ASA is accredited by Cofrac, according to ISO 17043.

Since 1988, samples are regularly prepared and sent to laboratories in Europe and Africa. These samples allow more than 350 laboratories to assess their performance in

microbiology testing on two artificially contaminated matrices: a powder matrix and a gelified matrix.

Enumeration of flora such as enterobacteriaceae, staphylococci, Clostridium perfringens, bacillus, pseudomonas, lactic bacteria, yeast/moulds, as well as detection of salmonella and Listeria monocytogenes are proposed.

Participation in this RAEMA scheme appears to be an essential tool for laboratories to be confident in the reliability of their results and to keep their accreditation.



Release of customer- and application-specific solution

Shimadzu has released its new Nexera Prep Series Preparative Purification Liquid Chromatograph (LC). 'Preparative HPLC' is a process in which specific substances are separated and purified from samples.

shimadzu.eu

The new Nexera Prep Series provides better prep processes for extraction of functional and impurity components, as well as purification of target compounds in the food industry.

This product dramatically improves productivity via flexible scalability and an efficient, user-friendly preparative workflow.

The Nexera Prep Series consists of multiple related products with the LC units as the core. Users select a pump, autosampler and detector to build a system according to the purpose of the preparative work.

Systems can be configured using related

products such as the LH-40 Liquid Handler, FRC-40 Fraction Collector, Shim-pack Scepter LC Column for Analysis and Preparative Work, and Column Hub.

Specifically, the product can be used for the following purposes:

- Concentration and purification of immunosuppressive agents.
- Preparative work for impurities in degradants of medicinal agents.
- Separation and purification of functional components from natural materials.
- Consecutive analysis to separate and purify polymers and their additives and confirm the purity.



Extensive range of test kits suitable for industry-wide use

Holchem's online shop includes an extensive range of test kits and inspection equipment that is suitable for use across the food processing industry.

They are easy to use and are suitable for a range of different tasks including opening plant cleaning, cleaning in place, automated washing machines; chemical concentration checks; hand hygiene monitoring and air quality monitoring.

holchem.co.uk

The range includes visual assessment devices, traditional microbiological sampling devices, microbiological air sampler, rapid surface hygiene tests, rapid allergen tests, chemical tests, temperature, pH and conductivity monitoring and metal detectable stationery.

Recent new additions to the

shop include the 3M Fish Protein Rapid Kit and the 3M Coconut Protein Rapid Kit.

Both are designed to detect both processed and unprocessed allergen proteins and results are visible at 11 ±1 minutes after application of the sample.

They are intended for screening for the presence of fish and coconut proteins respectively in clean-in-place (CIP) final rinse water, environmental swab samples, food ingredients and processed food products.

There is also the new Raw Meat Species Flow Through Swab tests for cow, horse, pig, sheep and poultry and a new range of cameras and thermometers includes a 20m pipe inspection camera system.



Driving continual improvement in cleaning verification

The Clean-Trace hygiene monitoring and management system from 3M combines powerful software and advanced features to offer food processors confidence and peace of mind in their hygiene monitoring programmes.

3m.co.uk/foodsafety

Utilising ATP (adenosine triphosphate) bioluminescence detection, the system verifies in seconds that surfaces have been cleaned effectively. By combining rapid results with data analysis and reporting, the true value of ATP testing can be realised.

Regular analysis of results using the Clean-Trace software allows food processors to monitor the hygiene status of their operations over time. It helps to identify problem areas, measure the effectiveness of remedial action and drive continuous improvement in cleaning standards.

Furthermore, it allows for the maintenance of audit ready data helping to meet audit requirements and saving time when preparing for a

scheduled audit. It also demonstrates on-going diligence and preparedness when facing unannounced audits.

Through the suite of available reports, information can be shared at all levels in the production facility with both management and operators who have a direct responsibility for cleaning and hygiene practices.

The Clean-Trace hygiene monitoring and management system is just one of many innovative solutions from 3M that gives food producers peace of mind when making critical product manufacturing and release decisions.



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The next issue will focus on Options for foreign body detection. If you would like to be considered for inclusion please contact

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