Food Safety

INSIDER

Neogen® and 3M Food Safety Have Combined

Insider Interviews Industry Expert David W. Plank

NEOGEN®

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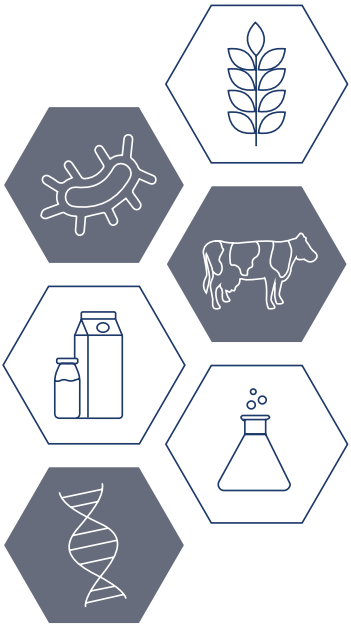
We are back with a special winter edition of the Neogen Food Safety Insider.

In this issue we share information on our unique food safety news, including our newly expanded product portfolio, combined expertise and added value service and support. Also featured is an exclusive interview with industry expert David W. Plank



Neogen and 3M Food Safety Have Combined

Global Reach - Trusted by top food companies, internationally recognised with third-party validations and certifications.

Comprehensive Solutions - Expanded product portfolio provides synergies and options to help address your challenges.

Dedicated Experts - Local technical support, with global network of specialists.

Expanded Capabilities - Deeply experienced team, robust pipeline, and patent portfolio.

Creating an Industry Leader and Global Provider

As protecting the world's food supply is a vital part of our mission, we are excited about the merger of 3M's Food Safety business with Neogen. Now, together we are at the forefront of food security, with resources, capabilities and solutions to be a global provider building further upon our already strong platform. Neogen now has an enhanced geographic footprint, even more innovative product offerings, greater digitization capabilities, and increased ability to respond to trends in sustainability, food safety and supply chain integrity.

This broadened food safety portfolio, coupled with our expanded range for quality and nutritional analysis testing from the prior acquisition of Megazyme® in 2021, marks an exciting new chapter for Neogen, on our journey in this new era of food safety, quality and security testing.

And we're on that journey with you. As one company, our team is excited to partner with you to make food safer, from field to fork not only for today but also for the future.

Find out more at neogen.com

SPECIAL FOCUS

A Proactive Approach to Environmental Monitoring

Environmental monitoring is at the core of every food safety programme and an essential part of any food production process. An effective hygiene monitoring programme can highlight environmental monitoring problems before products are manufactured. Stopping these issues early, not only protects public health but also protects brand integrity. With our new combined range, we offer our customers an expanded range of high quality products, solutions and services.

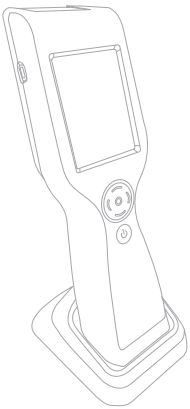
An adenosine triphosphate (ATP) monitoring system is often used to detect any organic material left behind on surfaces. Our comprehensive, expanded range of solutions for hygiene monitoring have been designed to verify the cleanliness of an environment across multiple industries.

ATP Hygiene Monitoring Solutions

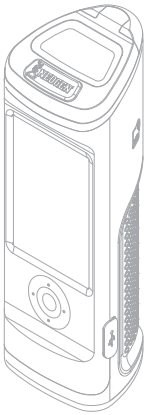
With a multitude of benefits, we offer an enhanced range of high quality products, solutions and services. Our ATP solutions offer accurate and trusted results with multi-facility management and RFID (radio frequency identification) capabilities.

Our easy to use equipment and software, available in multiple languages, can provide audit ready reports to help manage numerous results. With access to use our innovative, flat tip surface samplers to aid ATP recovery, we can ensure all your testing requirements are met.

Alongside our hygiene monitoring systems, we offer other tools for environmental monitoring, including allergen detection kits, pathogen detection solutions and our 16S Metagenomics laboratory services. Contact Neogen today to find out more on what product is best suited for your testing requirements.



AccuPoint® Advanced Next Generation Hygiene Monitoring System



Clean-Trace™ Hygiene Monitoring and Management System

For further information on what testing solution would be most suitable for your requirements, contact FoodSafetyAU@neogen.com

The First ISO 16140-2 Validated Commercial Sterility Testing Method

Producing a commercially sterile product requires carefully considered processes to ensure the product is fit for market and safe for consumption and Neogen are proud to be able to offer the first ISO 16140-2:2016 validated testing method for commercial sterility. The MicroVal certified ISO 16140-2 study found that the Neogen Soleris NF-105 testing method can provide results more sensitive than traditional methods, helping to ensure you have the reliable results needed to have confidence in the ultra-high temperature (UHT) treatment carried out.

The study not only showed an **increase in sensitivity but also a time saving of 15 days** compared to methods described in the EU regulation (EC) No 1662/2006 and the council directive 92 / 46 / EEC, providing results in as little as 24 hours after up to 3 days of pre-incubation. The drastic time saving not only allows for improved operational efficiencies and early alerts of processing issues, but also means that products can be safely released to market extremely fast, ensuring that demand is continuously met.

Soleris permits for detection during enrichment which means the sensitivity of the test can be up to 1,000 times more sensitive than flow cytometry methods and up to 10,000 times more sensitive than ATP methods. The 5 mL sample capacity of the Soleris NF-105 vial means that the limit of detection (LOD) of the vial is 0.2 CFU/mL and with a pre-enrichment step, contamination of <1 CFU per whole carton can be detected.

If you'd like to find out more about our Soleris Next Generation platform or our validated methods, why not contact us today at FoodSafetyAU@neogen.com.

What's New

Microbiology ISO Updates

- Major change to **ISO FDIS 15213-1**, Enumeration of Sulfite-reducing *Clostridium* species by Colony Count Technique.
- Change to **ISO DIS 7218:2022**, General Requirements and Guidance for Microbiology Examinations.
- Change to **ISO 16654:2001** FDAM 2 Horizontal Methods for the Detection of *Escherichia coli* O157.
- Change to **ISO 21872-1:2017** FDAM 1 Horizontal Method for the Detection of *Vibrio* species – Detection of potentially *Enteropathogenic Vibrio parahaemolyticus*, *Vibrio cholerae* and *Vibrio vulnificus*.
- Proposed changes to **ISO 10272-2:2017** FDAMD 1 Horizontal Method for the Detection and Enumeration of *Campylobacter* species – Colony Count Technique.
- Proposed changes to **ISO 10272-1:2017** FDAMD 1 Horizontal Method for the Detection and Enumeration of *Campylobacter* species – Detection.

Allergen Testing Solutions

Neogen's newly expanded allergen testing range provides testing solutions for 20 key allergens of concern including milk, egg and pistachio. Suitable for a variety of applications including cleaning verification, finished product and ingredient testing, our solutions are available in both lateral flow and ELISA test formats. In addition, we can provide technical support and matrix validation assistance in order to maximise your testing capabilities.

Benefits of Lateral Flow Solutions

Our lateral flow products are easy to use and provide fast, reliable results in minutes. Our highly sensitive tests are specific for a variety of commonly tested allergens, and a unique overload line which prevents false negative results during testing. The accuracy of our solutions is demonstrated by AOAC PTM approval and is validated on a broad range of matrices including swabs, rinses and foods for select assays.

Benefits of ELISA Solutions

Our ELISA solutions provide a method for obtaining quantitative results, quickly and accurately. Our easy to use ELISA products provide a consistent testing protocol, using non-hazardous reagents, providing highly sensitive solutions over a diverse range of allergens.

For further information on which allergen testing solution would be most suitable for your requirements, contact FoodSafetyAU@neogen.com or scan the QR code to read about our latest AOAC validation for Reveal® 3-D for Gluten

Combining Solutions and Support

At Neogen we understand that all industries have different requirements, and with each industry, companies may have unique ways of testing. That's why we **tailor our services and support** to suit your needs. We pride ourselves on helping you achieve your goals by not only providing high quality testing solutions, but also sharing our **expertise, industry knowledge and experience**.

When looking for a testing solution, there are many aspects to take into consideration and **having confidence in your choice is critical**.

Neogen are here to help you find a solution that fits perfectly and works harmoniously with your testing parameters. Whether this is in microbiology, testing for allergens or natural toxins, environmental monitoring, or nutritional analysis, our technical experts can work with you.

For further information on what testing solution would be most suitable for your requirements, contact FoodSafetyAU@neogen.com

"Working with Neogen has been great because they have supported us through constant remote assistance"

- The Kraft Heinz Company

Q&A David W. Plank

Managing Principal, WRSS Food & Nutrition Insights

Dietary fiber is a nutrition component in foods that improves population health around the world. Many studies have shown that it increases longevity and quality of life by reducing the risk of heart diseases, forms of cancer, type II diabetes, and other diseases.

Why is measuring dietary fiber important?

"Inclusion and enhancement of dietary fiber in food product provides health benefits to consumers. Therefore, it's advantageous to public health for food manufacturers to measure dietary fiber and display levels on product packaging. Labelling of dietary fiber content in a product informs the health-conscious consumer and can provide a competitive advantage as many health authorities around the world have granted permission to include specific health claims on packaging, increasing product desirability."

How do you analyse dietary fiber?

"Measurement is done by eliminating everything that is not dietary fiber through digestion of proteins, sugars and starches using enzymes and measuring any residuals. All the testing methods for human foods rely on this type of approach. Where the analytical methods differ is in digestion conditions, and their ability to provide the most accurate simulation of human digestion and therefore the best representation of physiologically relevant dietary fiber. "

How is dietary fiber regulated?

"Dietary fiber is regulated by regional health authorities around the world. There can be differences as to which non-digestible carbohydrates are recognized as dietary fiber. However, almost all regions recognize the Codex Alimentarius

definition of dietary fiber. It is important for food manufacturers to understand the local regulations for dietary fiber where they manufacture and where they intend to distribute their products."

What are the risks of incorrect dietary fiber labelling and how do you ensure products are compliant?

"If making a health claim linked to dietary fiber, you are required to do the necessary testing to validate the claim. There is a high level of litigiousness in markets like that of the United States, where class action lawsuits can be brought should you mislabel the dietary fiber on product packaging. Testing is also very important to make sure that you don't run afoul of consumer organisations or regulatory agencies and find yourself mislabelling your product resulting in product recalls and other negative legal consequences."

In your opinion, which method is most suitable to measure dietary fiber?

"While all AOAC approved methods are acceptable, I would recommend the AOAC 2022.01 method. This dietary fiber method was recently approved by AOAC (Association of Official Analytical Chemists) and it measures both soluble and insoluble dietary fiber which is required for some regional health claims. Digest conditions of the AOAC 2022.01 and AOAC 2017.16 total dietary fiber method are the most physiologically relevant developed to date and accepted by world regulatory authorities. These methods simulate digest conditions which have been shown to have a high correlation to human glycaemic response and measure correctly all fiber components including resistant starch and non-digestible oligosaccharides without prior knowledge of the fiber profile of samples."

Read the full interview here

Leading the Way in Dietary Fiber Solutions

For over 30 years, Neogen's Megazyme range has been at the forefront of innovation in dietary fiber analysis. Our assay kits allow for the measurement of dietary fiber following AOAC 2022.01, 2017.16, 2011.25, and 2009.01, 991.43 and 985.29. Our Rapid Integrated Total Dietary Fiber Assay Method (K-RINTDF) is the most recent, accurate, and encompassing method for the correct measurement of all types of dietary fiber.

For more information on our dietary fiber range please contact infomz@neogen.com

Contact us today: 07 37362134 • FoodSafetyAU@neogen.com • www.neogenaustralasia.com