innovations IN FOOD TECHNOLOGY

ISSUE 113 NOVEMBER 2026

Pomegranate extracts
GLP-1 formulations
Dairy applications
Dough elasticity
Iron absorption
Nutricosmetics
Ashwagandha
Proteins

Non-alcoholic beverages
Plant-based applications
Yeast extracts
Food textures
Gum arabic
Olive flour
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2027 / MEDIA & EDITORIAL

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FEB / MAR	MAY / JUL	AUG / OCT	NOV / DEC
Nutraceuticals Europe Anuga FoodTec · Gulfood	Vitafoods Europe IFT	SupplySide Global	Fi Europe

Our publishing team will be at selected shows in 2027.
If you're attending, come and talk with us about what your company wants the industry to hear.

A SNAPSHOT OF WHAT THIS NOVEMBER ISSUE BRINGS TO THE INDUSTRY

30+	70	10	10
COMPANY-LINKED STORIES & FEATURES	NEWS ITEMS ACROSS FIVE SECTIONS	PAGES OF FI EUROPE EXHIBITOR PREVIEWS	PAGES OF CLINICAL STUDY NEWS

22 GENERAL NEWS · 8 DAIRY NEWS · 5 BAKERY NEWS
17 NEW PRODUCTS · 18 CLINICAL STUDY NEWS

YOUR NEXT STORY COULD BE PART OF IT.

The 2027 Media Pack is inside this issue.

Explore the themes. Find the right issue. Meet our publishing team at selected shows.

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DKSH expands partnership with GNT for natural colors in Vietnam's food and beverage industry

DKSH's Business Unit Performance Materials, a leading distributor of specialty chemicals and ingredients, has expanded its collaboration with GNT International B.V., a global leader in plant-based coloring foods, bringing their Exberry natural color portfolio to customers in Vietnam. Exberry is a registered trademark of GNT. Under the agreement, DKSH will provide business development, market analysis, marketing and sales, distribution and logistics, regulatory support, and technical services to accelerate the growth of GNT's natural color solutions in the Vietnamese food and beverage market.

The expanded collaboration builds on a longstanding relationship between DKSH and GNT in other markets, including Australia, New Zealand, and Japan. Leveraging DKSH's extensive regional presence, deep industry expertise, strong customer network, and regulatory capabilities, GNT aims to strengthen its reach among food and beverage manufacturers in Vietnam and unlock new growth opportunities.

GNT is a leading provider of plant-based coloring ingredients marketed under its globally recognized Exberry brand. The company provides natural color solutions derived from non-GMO fruits, vegetables, and edible plants, enabling food and beverage manufacturers to create visually appealing products while meeting increasing consumer demand for clean-label, naturally sourced ingredients.

GNT's natural color portfolio is suitable for applications in beverages, bakery, confectionery, dairy, cereals, snacks, sauces, savory, plant-based meat, seafood, and dairy, and helps manufacturers develop products that align with evolving market trends toward transparency, sustainability, and natural ingredients. The solutions are used across multiple categories, providing versatility, stability, ease-of-use, and strong sustainability credentials, allowing brands to achieve vibrant colors while maintaining a natural positioning.

Andreas Thiede, General Manager at GNT Singapore Pte. Ltd., commented: "Exberry colors allow manufacturers to deliver the natural and eye-catching products consumers want to see. DKSH is perfectly placed to help us meet the growing demand for natural ingredients in Vietnam thanks to its strong market presence and consistent track record. Together, we can deliver enhanced value for food and beverage brands throughout the country."

Cesar Saez, Vice President, Business Unit Performance Materials, Southeast Asia, DKSH, added: "We are delighted to further strengthen our partnership with GNT and support the growth of its Exberry natural color solutions in Vietnam. As consumer demand for natural and clean-label products continues to increase, DKSH's local market knowledge, regulatory expertise, sales excellence, innovation and formulation capabilities, and collaborative mindset will help bring innovative coloring solutions to food and beverage manufacturers across the market."

www.dksh.com
www.exberry.com

Azelis signs partnership with AKV to distribute functional potato starch solutions in Türkiye

Azelis, the reference innovation service provider in the speciality chemicals and food ingredients industry, is pleased to announce a new distribution agreement with AKV for its potato starch portfolio for Food & Nutrition applications in Türkiye. The agreement, which came into effect on 1 September, brings AKV's high-quality potato starches to Azelis customers, with a particular focus on meat and savoury applications.

- Customers gain access to AKV's high-quality potato starches, supported by Azelis's local market knowledge, technical expertise and customer service.
- AKV gains broader access to customers in Türkiye through Azelis's established market presence and strong position in key food segments, supporting its ambitions to grow its market share.
- Azelis adds a complementary product line to its Food & Nutrition portfolio, creating opportunities to provide a broader range of ingredients to existing customers and develop new business.

AKV is owned by approximately 200 Danish farmers who grow the potatoes used as ingredients near the company's factory in northern Denmark. The company is recognised for the quality of its potato starches for meat applications, its application expertise, and focus on developing functional ingredient solutions. Azelis was selected as its distribution partner based on the strength of its local team, market intelligence and established relationships within the industry across Türkiye.

Francois Masson, Regional Sales Director Southern Europe at AKV, comments: 'By combining our potato starch expertise with Azelis's local market knowledge and close customer relationships, we can create greater value for food manufacturers in Türkiye. Together, we can support customers in developing solutions that meet their specific formulation and application needs, particularly in meat and savoury applications, while continuing to grow our business in Türkiye.'

Burcu Gezegen Özdemir, Market Segment Director Food & Nutrition & Managing Director Turkiye, Azelis, comments: 'AKV's potato starch portfolio complements our existing Food & Nutrition offering and addresses a clear opportunity within the Turkish market. Combining AKV's product quality and innovation capabilities with our local market knowledge allows us to offer existing and new customers a broader range of starch-based solutions tailored to evolving customer needs.'

Azelis combines local market knowledge with technical expertise and formulation capabilities to support customers throughout the product development journey. Through its local teams and application laboratories, the company helps customers develop innovative solutions while creating growth opportunities for its principals.

www.azelis.com


© Kristin Stoylen Epax

Epax offers research grant as it asks 'What's next after Omega-3?'

Epax will offer a €100,000 grant to researchers who can expand scientific understanding of the health benefits of marine long-chain monounsaturated fatty acids (LC-MUFAs).

The competition marks the launch of new EPAX® Cetoleic 2040, which represents a breakthrough in the marine lipid category as a precision oil with high LC-MUFA content and almost no Omega-3. The concentrate of the up-and-coming LC-MUFAs Omega-9 and Omega-11 offers potential in nutraceuticals across a range of health categories.

Reflecting this, the 'EPAX® Research Grant in Marine LC-MUFAs' has been set up to stimulate high-quality clinical research into the benefits of marine lipids beyond traditional Omega-3s.

The competition is open to universities, academic hospitals and other non-profit research organizations. Applicants are invited to propose a human clinical study investigating the effects of marine LC-MUFAs as nutritional ingredients or dietary supplements. Possible areas of research include cardiovascular health, metabolic health, healthy aging, inflammation, cognitive function, skin health and physical performance.

The deadline for submissions is 31st December 2026, with the winners announced in March 2027. In addition to the research grant of €100,000, they will have access to a supply of EPAX® Cetoleic 2040 and technical support from Epax experts.

Bjørn Refsum, CEO of Epax, said: "Since we were created in 1838, Epax has been all about innovation. We're scientists, developers and pioneers who've always tried to push the boundaries of what's possible with marine lipids. We always strive to be a leader in the EPA and DHA categories, but right now, there's another big question: 'What comes after Omega-3?' As we discover more about the emerging field of marine LC-MUFAs, this initiative reflects our commitment to being part of that journey as a funder and supporter of clinical research."

The link to apply for the grant is: https://www.epax.com/news/epax-launches-the-epax-research-award-to-support-new-research-on-marine-lc-mufas

www.pelagia.com

Azelis expands partnership with Biospringer by Lesaffre through new Nordic distribution agreement

Azelis, the reference innovation service provider in the speciality chemicals and food ingredients industry, is pleased to announce the expansion of its partnership with Biospringer by Lesaffre for yeast-based ingredients. As of 1 October 2026, Azelis distributes Biospringer's portfolio of yeast extracts, yeast proteins and other yeast-derived ingredients to customers in Denmark, Finland, Norway and Sweden.

- Customers gain access to a broad range of yeast-based ingredients, backed by Azelis's local market knowledge, technical expertise and application support.
- Biospringer expands its reach in the Nordic region through Azelis's established customer relationships and strong position in savoury applications.
- Azelis broadens its Food & Nutrition portfolio with a complementary range of yeast-based ingredients, creating additional opportunities for customers and principals.

The new agreement builds on the existing relationship between Biospringer and Azelis in Türkiye and Poland. The expansion into the Nordic region reflects the strong collaboration between the two companies and Azelis's established position in the savoury segment, supported by its local teams and technical expertise. By combining Biospringer's portfolio with Azelis's market knowledge and application support, the partnership will help customers develop solutions tailored to regional market needs.

Marie Bensmael, Sales Development Manager Nordics, Biospringer, comments: 'Azelis brings the technical expertise and established presence in the savoury market that we need to further develop our business in the Nordic region. Its ability to combine our products with complementary ingredients and work closely with customers on their formulation needs will help us identify and develop new opportunities across these markets.'

Burcu Gezegen Özdemir, Market Segment Director Food & Nutrition & Managing Director Turkiye, Azelis, comments: 'We are pleased to expand our partnership with Biospringer into the Nordic region. Their yeast-based ingredients complement our existing Food & Nutrition portfolio and create new opportunities to support customers developing products for evolving consumer preferences. Combined with our local market knowledge and technical expertise, this partnership enables us to bring even greater value to customers across the region.'

www.azelis.com

Döhler expands global colour capabilities

Creating successful food and beverage products requires colour solutions that combine strong visual appeal with natural sourcing, reliable availability and efficient implementation. To support customers in meeting these requirements across markets, Döhler is expanding its global colour production network through major investments in Türkiye and Mexico.

The expansion combines significantly increased production capacity with new processing technologies and a stronger regional manufacturing footprint. This gives customers around the world greater flexibility when developing colour solutions for different applications and enables Döhler to support projects from concept development through to scalable production.

At its production site in Karaman, Türkiye, Döhler is making a substantial investment in its colour capabilities. The expansion increases capacity across several existing production lines while introducing new technologies for additional colour formats.

Production capacity for black carrot and beetroot will increase considerably, expanding Döhler's ability to support customers with solutions based on these raw materials. The site's liquid colour capabilities are also being strengthened. In addition, resin columns and a new evaporator will increase capacity for anthocyanin- and betanin-based colour solutions.

For powder applications, Döhler is adding new spray dryer technology that will significantly increase colour powder production capacity. Further investment in a new jet mill will expand micronisation capacity, supporting applications where fine particle size and consistent dispersion are important. A new roasting unit adds capabilities for natural brown colourants, while a new ball mill supports the production of colour suspensions. The investment programme has been implemented in phases throughout 2026, with completion of the overall expansion targeted for the end of the year.

Döhler is complementing these investments with the continued development of its new production site in the State of Mexico. The first phase of the site, located in the Arco 57 Industrial Park in San Francisco Soyaniquilpan de Juárez, opened in July 2026 and establishes a new regional hub for science, technology and the production of natural ingredients and integrated solutions.

By bringing production and technical expertise closer to customers in Mexico, across Latin America and North America, we will support shorter response and delivery times, more efficient logistics and the development of solutions tailored to regional requirements. Local raw-material sourcing and regional supply-chain development will further strengthen these capabilities.

"Colour plays an essential role in the sensory experience of food and beverages, but our customers need more than a broad portfolio. They need solutions that can be developed efficiently, produced reliably and scaled across markets. By expanding our capabilities in Türkiye and Mexico, we are bringing additional capacity, technology and production expertise closer to our customers and creating an even stronger platform for future colour innovation." says Jakob Schjoerring-Thyssen, Global Head of Business Unit Colours, Döhler."

www.doehler.com

CollaSwiss® launches first collagen peptides from Switzerland

As the only manufacturer of collagen peptides in Switzerland, Swiss Nutrivalor AG is launching a new range: high-quality collagen peptides produced entirely in Switzerland to the strictest quality standards. In addition to exceptional purity and functional performance, the CollaSwiss® range is characterised by transparency and a fully traceable value chain.

The portfolio comprises premium collagen peptides derived from bovine and porcine raw materials. With a neutral sensory profile and excellent technological properties, they are suitable for a wide range of applications in the food supplement sector, and functional products targeting beauty, longevity, sport and mobility. They therefore meet consumer demand for high-quality products containing safe and sustainably sourced ingredients.

'Swiss-made' as a mark of distinction

CollaSwiss® stands for '100% Swiss Premium Collagen Peptides'. It is manufactured using Swiss precision technology exclusively in Switzerland and in accordance with strict quality and safety standards. These include controlled sourcing of raw materials and full traceability. Furthermore, every single batch is standardised and inspected, so variations in quality are all but ruled out. Swiss

Nutrivalor AG is certified to FSSC 22000, which means CollaSwiss® offers international manufacturers and brands the highest level of product quality, and safety, as well as full transparency.

Designed for a range of applications and dosage forms

The bovine and porcine collagen peptides have been developed for a wide range of applications and meet the high demands of industrial processing. CollaSwiss® collagen peptides can be integrated into a variety of product concepts, formulations and dosage forms, including tablets, powders for sachets, instant and ready-to-drink (RTD) beverages, shots and gels, gummies, bars and dairy products. They are characterised by a neutral sensory profile, excellent free-flowing properties, wettability, solubility and other desirable processing characteristics.

Swiss innovation and expertise

Stefan Lander, Chief Sales Officer at Swiss Nutrivalor AG, believes the company is well equipped to tackle these dynamic segments: "The market has grown significantly in recent years and global demand – particularly for safe, high-quality collagen peptides made from European raw materials with full transparency – has risen enormously. With CollaSwiss®, we are positioning the first Swiss collagen peptides on the international market. In doing so, we are specifically targeting companies that, in addition to reliable performance, place particular value on uncompromising quality, origin and transparency."

www.collaswiss.com

VEPRONA partners with Crespel & Deiters and boosts functional ingredients portfolio

VEPRONA GmbH, a supplier of soy raw materials from single-variety, identity-preserved cultivation in Europe, has a new shareholder in refinement specialist and ingredient manufacturer Crespel & Deiters, who joins existing owners farmsaat and L. Stroetmann. The partners plan to expand the product range with functional soy ingredients tailored to defined technological properties for an enhanced nutritional profile and efficient processing.

VEPRONA GmbH was founded in 2022 in Everswinkel in the Münsterland region of Germany. The company covers the entire soy value chain, from variety development, single-variety contract farming and harvesting through to the production and marketing of functional soy ingredients. As each variety has a significant impact on protein quality, water binding, solubility and processing behavior, VEPRONA selects the appropriate type based on the intended application.

Partnership goals

The food industry demands raw materials with stable functionality and consistent quality. Short, controlled supply chains and single-variety processing allow VEPRONA to trace the origin and properties of its raw materials throughout the supply chain, thus ensuring consistent quality. With Crespel & Deiters on board, VEPRONA adds to its raw material expertise in technological processing and the production of ingredients with clearly defined properties. This supports end products with an improved nutritional profile, and the promise of optimal consistency, texture and appearance.

"We know exactly which properties our soybean varieties have and that's where functionality begins. Crespel & Deiters is now contributing its know-how in processing protein raw materials so that, together, we can deliver soy ingredients that are tailored to the needs of our customers and their products," says Carolin Bunsen, Managing Director of VEPRONA GmbH.

Impressive industry expertise

Each shareholder brings different expertise to the partnership. The L. Stroetmann and farmsaat groups have experience in agricultural and food trading, as well as breeding and propagating arable crops, including soybeans. With almost 170 years of experience, Crespel & Deiters has grown from a wheat processor into a global specialist in the refinement of functional starch and protein ingredients from renewable raw materials. It actively contributes to research and development, as well as protein processing and functionalization.

"Soy is a renewable raw material with a lot of potential. Combined with our in-depth expertise in refinement, we can add value to VEPRONA soy ingredients and make them suitable for a wide range of applications," says Philipp Deiters, CSO Food at Crespel & Deiters.

Highly versatile

The joint work focuses on partially defatted soy ingredients with a high protein content.

Depending on the variety and processing, they are low fat and have a protein content of up to 57%.

"Our soy ingredients are an alternative to concentrates and isolates. Thanks to gentle processing, we offer soy flours with full protein functionality, including binding properties, water solubility and extrudability. This makes them highly versatile in meat and sausage products, baked goods or dairy and meat alternatives," says Thorben Raasch, R&D Manager at VEPRONA GmbH.

www.veprona.com

Leiber acquires new production facility in Romania

Leiber is setting the course for further growth: The acquisition of the new production facility of Agsira S.R.L. in Romania was completed. With this step, Leiber is strengthening its presence in Central and Eastern Europe.

Through the acquisition of the new facility in Mizil, in southeastern Romania, Leiber is expanding its production capacities and creating additional opportunities for the continued development of its business.

"With the new facility, we are creating the foundation to systematically expand our capacities and to continue supporting our customers with the performance and flexibility they need," says Oliver Beckmann, CEO.

The new facility complements Leiber's existing sites and opens up potential for additional production volumes, shorter delivery routes and access to new markets. Following the completion of the transaction, the gradual integration of the site will now begin.

With this additional operational strength, Leiber is sending a strong signal for the future. By maintaining its own production capacities and utilizing by-products from beer production, the company is creating efficient, stable and long-term value chains – closer to customers and relevant markets. This provides the foundation for further strengthening Leiber's market position, seizing new opportunities and growing profitably together with its customers.

"We are delighted to continue implementing our long-term strategy with this investment. The new site is a clear commitment to the region while also creating new perspectives for our company and our employees," adds Gilbert Klausmeyer, CEO.

www.leibergmbh.de

dsm-firmenich strengthens commitment to Indonesia with new Jakarta office and Karawang manufacturing expansion

dsm-firmenich, innovators in nutrition, health, and beauty,has opened its new Jakarta office and the expansion of its Karawang manufacturing facility, reinforcing the company's long-term commitment to customers in Indonesia and across the region. Certified by the Green Building Council of Indonesia, the new office and expanded capabilities will strengthen customer collaboration and accelerate the development of locally relevant solutions for consumers.

The new Jakarta office brings together teams from the company's three Business Units ('Taste, Texture & Health', 'Perfumery & Beauty', and 'Health, Nutrition & Care') under one roof to maximize synergies and efficiency, strengthen cross-business collaboration and develop more integrated, consumer-focused solutions.

For Perfumery & Beauty, the new office features expanded and upgraded creation and application labs, immersive sensorium experiences, and dedicated air care testing facilities to evaluate fragrance performance, longevity and product stability.

For Taste, Texture & Health, new capabilities in food and beverage include a baked goods application lab and a pilot plant for dairy ultra-high temperature (UHT) applications, supported by expertise in local sweet goods and savory applications and flavor creation.

Jun Saplad, Senior Vice President, Regional Consumer Brands, Perfumery & Beauty, commented: "Today's customers need more than a supplier; they need a true co-creation partner. This new setup allows us to work side-by-side with our customers, accelerating the journey from consumer insight to fragrance solutions through faster prototyping, deeper collaboration and locally relevant innovation. By bringing together the complementary strengths of our Perfumery & Beauty teams, we can create more holistic consumer experiences and unlock more opportunities for synergies and innovation. Combined with enhanced in-market capabilities and our global creation excellence, our new Creative Center brings differentiated fragrance and beauty solutions to market faster, helping customers win with greater confidence and impact."

"Indonesia has been an important part of our story for more than 35 years. It's one of Southeast Asia's biggest markets, and our new facilities will help accelerate our growth," said Timothy Elisafan, Vice President Taste, Asia Pacific, dsm-firmenich. "By expanding our innovation and manufacturing capabilities, we're making it easier to co-create with customers, respond more quickly to rapidly changing consumer needs and bring new solutions to market faster."

In addition to the new office opening, the company has completed the expansion of its Karawang manufacturing facility, significantly increasing production capacity and strengthening innovation, operational excellence and sustainable manufacturing to meet growing customer demand. The expansion features new drying technology for reaction and top-note products, which is capable of drying both high-fat and high-protein products. It also includes new capabilities for culinary blending, which improves efficiency.

www.dsm-firmenich.com

Fi Europe
Frankfurt, Germany
17-19 November 2026

Fi Europe 2026: Powering the future of food manufacturing

Taking place from 17–19 November 2026 in Frankfurt, Fi Europe 2026 will bring together 1,650+ exhibitors and 27,000+ expected attendees from 135+ countries, giving food manufacturing and production professionals the opportunity to discover practical technologies, meet specialist suppliers and find solutions to today's operational challenges.

Find smarter solutions for production

The dedicated Tech – Services & Equipment area brings together technology providers and equipment specialists supporting every stage of food production – from processing and automation to digitalisation and quality management.

Exhibitors including GEA, Armfield, CEPI and Omve will showcase technologies and services designed to help manufacturers improve efficiency, overcome production challenges and bring new products to market. Visitors can also compare solutions for processing, concentration, drying and other applications where efficiency and consistent performance are critical.

Improve efficiency and tackle rising costs

Energy efficiency is a growing priority for food manufacturers looking to manage operating costs while reducing environmental impact. At Fi Europe, visitors can explore processing and production technologies designed to optimise energy use, alongside solutions that can help reduce water consumption, waste and resource use.

Automation can also help manufacturers address labour pressures while improving consistency. From automated storage, dosing and raw material intake to smarter production processes, visitors can discover technologies that reduce manual intervention, minimise errors and support more efficient operations.

Harness AI and digital technologies

As AI and digitalisation move further into food manufacturing, new opportunities are emerging to improve both product development and production.

Visitors can explore digital solutions that use data to improve processes, track raw materials and strengthen supply chain transparency, as well as technologies that can simplify compliance and automate regulatory records.

AI-powered formulation and materials informatics can also help R&D teams optimise recipes, identify potential ingredient combinations and reduce trial and error – supporting faster development while connecting formulation with production needs.

Build more resilient, sustainable operations

Food manufacturers are also looking beyond individual processes to build more resilient and sustainable plants. Fi Europe provides access to technologies that can help reduce waste, energy and water use, while improving productivity and operational visibility.

The entire F&B value chain – all in one place

The wider exhibition brings together the ingredients, formulation expertise and manufacturing technologies needed to take a product from concept to commercial production. This makes it possible for visitors to consider the complete journey – from selecting ingredients and developing formulations to processing, production and bringing finished products to market.

Learn from industry experts

Beyond the exhibition floor, Fi Europe's content programme will explore the technologies and market forces shaping food production and product development. Expert-led sessions will cover innovation, emerging technologies, market trends and the changing needs of the food and beverage industry.

The Innovation Hub, New Product Zone powered by Innova Market Insights and Exhibitor Showcase Theatre will provide further opportunities to discover new products, technologies and approaches, while dedicated networking features and AI-powered matchmaking can help visitors connect with relevant suppliers and potential partners.

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Tate & Lyle and BioHarvest reach key milestone in next-generation sweetener development programme

Tate & Lyle, a leader in ingredient solutions for healthier food and beverages, and BioHarvest Sciences Inc, has announced an important milestone in their next-generation sweetener development programme.

The programme has demonstrated that BioHarvest's Botanical Synthesis™ platform is capable of producing the targeted next-generation sweetening solution. The achievement marks continued positive progress in the collaboration, with both companies encouraged by the results achieved to date.

Development activities continue to advance in line with expectations, providing further evidence of the promising capabilities of BioHarvest's Botanical Synthesis™ platform and its potential to support innovative approaches to ingredient development.

Food and beverage manufacturers continue to seek a broader range of sweetening solutions that can support sugar and calorie reduction while delivering the taste and functionality consumers expect. New approaches to ingredient development have the potential to expand the tools available to manufacturers as they respond to different formulation needs across food and beverage categories.

BioHarvest's Botanical Synthesis™ platform represents an innovative approach to ingredient development and production. It has the potential to support more sustainable access to valuable plant-derived ingredients by reducing dependence on traditional agricultural production methods. The approach could also improve consistency and supply reliability, while reducing some of the time, labour and natural resources required to produce certain ingredients.

The milestone builds on the expanded collaboration announced by Tate & Lyle and BioHarvest in May 2026 and reflects the continued advancement of the companies' work together on sweetener innovation.

Susanna Palatucci, Vice President, Commercial Innovation and Strategy at Tate & Lyle, said: "Different food and beverage categories demand different balances of taste, nutrition, cost and labelling, which is why building a broader toolbox of solutions matters. This milestone further bolsters the potential of BioHarvest's Botanical Synthesis™ platform and the role new approaches to ingredient development could play in helping us meet those varied customer needs across our portfolio.

"What makes technologies like this particularly interesting is their potential to open up new ways of accessing valuable ingredients, while also considering consistency, supply reliability and the responsible use of natural resources. We're encouraged by the progress of the programme and what it could add to our science-led approach to sweetener innovation."

Dr Zaki Rakib, Chief Executive Officer and Executive Chairman of BioHarvest Sciences, said: "The value of this collaboration goes beyond a single development programme. It is about exploring how Botanical Synthesis™ can open up new approaches to ingredient innovation, particularly where traditional production methods can be complex or resource-intensive.

"Working with Tate & Lyle brings together our platform with deep expertise in sweetening, formulation and customer needs. That combination is helping us build a clearer picture of where Botanical Synthesis™ can make a meaningful contribution to the future of sweetener development."

www.tateandlyle.com

Seppic expands its Lons facility to triple its production capacity for natural extracts for nutraceuticals and cosmetics

Seppic, leading producer of specialty ingredients, recently inaugurated a new production unit at its Lons facility, near Pau. This investment marks a key milestone for Seppic in response to global demand for purified natural active ingredients.

The new 1,400 m2 building at Seppic's 8-hectare Lons site, which employs over 50 people, will triple its production capacity for CERAMOSIDES™, a key range serving both the nutrition and beauty markets. These ingredients, wheat extracts rich in phytoceramides, are available for topical and oral use with clinically proven benefits for anti-aging, skin hydration, and hair loss reduction.

Ceramides are widely recognized as a key ingredient in both the cosmetics (more than 1.4 billion views for #ceramides on TikTok) and the nutrition markets with a +6.9% CAGR[1] for food supplements over the period 2024-2030[2].

Demonstrating its rising global recognition, CERAMOSIDES™ tradename is already featured as a trusted key ingredient on the packaging of over 150 nutrition brands worldwide, with demand continuing to increase.

These new infrastructures therefore address a growing market need, and demonstrate Seppic's renewed ambition in the promising markets of cosmetics and nutraceutical ingredients derived from natural extracts.

Virginie Cavalli, CEO of Seppic : "Our teams take great pride in the inauguration of this new unit. We are granting ourselves full capacity to meet the growing market demand and thus serve our customers even better. It is a major investment for the future, which also allows us to continue diversifying the activities of our Lons site, anchoring activity in the heart of local French territory."

References:

1 Compound annual growth rate

2 Grand View Research. (2024). Ceramide Market Size, Share & Trends Analysis Report By Type (Natural, Synthetic), By Application (Cosmetics, Pharmaceuticals), By Region, And Segment Forecasts, 2024 - 2030

www.seppic.com

Nestlé invests CHF 157 million in Thailand to meet growing demand for high-quality pet nutrition

Nestlé is investing more than CHF 157 million to expand its pet food manufacturing capabilities in Thailand, strengthening production for Purina brands and helping meet the growing demand for high-quality pet nutrition.

The investment is focused on Purina's manufacturing site in Rayong, Thailand and will enable increased production of pet food and pet treats under the Felix, Friskies, Pro Plan and Purina One brands. Production will support both local and international markets.

"Pet food is one of Nestlé's most dynamic segments globally, accounting for around 21% of Group sales. This investment reflects our confidence in its long-term potential across Asia, Oceania and Africa (AOA) as well as the rest of the world," said Remy Ejel, CEO of Nestlé Zone AOA. "Thailand is an important part of Purina's global manufacturing network, and this expansion will enhance our ability to serve more pet owners with superior nutrition."

A rise in pet ownership is driving growth in pet care across AOA. Pet owners are moving from home-prepared meals to wholesome packaged nutrition, particularly in the premium space, and they are looking for products that support pets' health and wellbeing.

"With over 350 million domestic cats and dogs across AOA as well as a pet population that continues to grow, demand for high-quality pet nutrition is also increasing," added Hubert Wieser, CEO of Nestlé Purina Petcare. "The health and wellbeing trend is being extended to pets, as they are increasingly seen as members of the family. This is driving demand for functional and specialized products that help enhance their longevity, vitality and overall quality of life."

The expanded production is expected to use a high proportion of locally sourced raw materials, including poultry, fish and vegetables, supporting local suppliers and boosting value creation in Thailand.

The CHF 157 million investment is part of Nestlé's continued efforts to strengthen pet food manufacturing worldwide, following a CHF 520 million investment in a new pet food plant and logistics platform in Italy and a USD 550 million investment in a new Purina factory in the U.S. The investment further strengthens Nestlé's manufacturing footprint in Thailand, as the company also plans to build a new high-tech Nescafé production and distribution hub in the country.

www.nestle.com



Nestlé invests CHF 310 million in Brazil to grow its presence in nutrition and health

Nestlé will invest CHF 310 million by 2028 in the nutrition and health segment in Brazil, including for the construction of a new manufacturing facility in Ituiutaba, Minas Gerais, as the company expands capacity in one of its fast-growing and strategic categories.

Representing an investment of approximately CHF 94 million, the new facility in Ituiutaba will be dedicated to the production of infant formula serving both the Brazilian market and export opportunities. The broader investment plan covers upgrades to Nestlé's factory for nutrition and health products in Araçatuba, the company's main hub for infant, medical and adult nutrition products in Brazil, as well as the expansion of key ingredients. To help meet growing demand for infant nutrition products in Brazil, whey production will be increased by 15% by 2029.

"Nutrition is one of Nestlé's key categories globally and today, accounts for around 20% of Group sales," said Jeff Hamilton, CEO of Nestlé Zone Americas. "Brazil is a strategic market for this business, and this investment will expand local production capabilities while increasing access to high-quality, science-based nutrition products."

Expected to begin operations in the second quarter of 2028, the new Ituiutaba facility will create approximately 100 new jobs. It will be Nestlé's second factory for infant nutrition in Brazil and will be equipped with advanced digital and automation technologies to enhance efficiency, product quality and food safety.

This investment supports the continued expansion of Nestlé in the nutrition and health category in Brazil, one of the company's most important markets globally. By increasing local capacity, Nestlé will help meet growing consumer demand while contributing to innovation, job creation and economic development.

www.nestle.com

LIS by Lesaffre is investing in new drying capacity and technologies in Strasbourg to better meet its customers' needs

LIS by Lesaffre, a Lesaffre subsidiary specializing in drying services for ingredient manufacturers, has announced the integration of the Lesaffre Culinary Strasbourg facility and the installation of new fluidized-bed drying capacity. This new equipment, which complements the existing facilities, enables LIS to meet the growing demand from its internal and external customers and to offer new services.

For more than 60 years, LIS by Lesaffre has built up solid expertise in spray drying, offering food ingredient producers significant and robust industrial capacity to process their food, nutraceutical, pharmaceutical, and cosmetic ingredients into powder form. Equipped with state-of-the-art facilities in Cérences (50), France, and Legnica, Poland, LIS's services range from laboratory-scale product development testing to industrial-scale production and include additional services such as liquid formulations, powder blending, and contract packaging.

By integrating the Lesaffre Culinary Strasbourg facility, LIS is expanding its geographic reach in Europe and thereby strengthening its proximity to its customers. The Strasbourg facility provides additional drying capacity through its existing equipment: the box dryer, which has a capacity of approximately 4,000 metric tons per year. This consolidation of production resources gives LIS greater agility to meet growing customer needs.

For Lesaffre Culinary Strasbourg, this development is part of the site's ongoing strategic refocusing on its core area of expertise: contract drying. By joining LIS, the site is maximizing its impact within Lesaffre by devoting itself fully to this mission for a broader customer base.

At the same time, LIS by Lesaffre has invested in new technology at its Strasbourg facility: the fluidized bed (FB). This multifunctional equipment opens up new possibilities: intensive granulation to improve the dispersibility, flowability, and compressibility of powders; coating to protect active ingredients; co-drying for ultra-precise dosing of a compound onto a carrier; and over-drying to adjust an ingredient's moisture content. They will enable the development of new processing techniques and the offering of higher-value-added services, meeting specific requirements and expanding the range of solutions available to both internal and external customers.

"These investments not only enable us to expand our production capacity, but above all to gain unique technological agility. We can now offer our internal and external customers a broader range of services and customized solutions for innovative applications, thereby positioning ourselves as a key partner in new markets. " declares Franck Auger, General Manager of LIS by Lesaffre.

"For the Strasbourg site, this development is part of an ongoing refocus on the drying business. For LIS, it opens the door to new markets and new growth opportunities. This investment responds to a clear market demand. It enables us to support our customers with more comprehensive solutions, new technologies, and high standards of quality, performance, and reliability." says Brice-Audren Riché, Lesaffre CEO.

www.lesaffre.com

Biospringer by Lesaffre acquires ModuMax®

Biospringer by Lesaffre has announces the acquisition of ModuMax®,the natural taste modulation technology developed by dsm-firmenich. This strategic move strengthens Biospringer's position as a key partner for food and beverage manufacturers seeking to improve taste performance in new or reformulated food and beverages products.

With ModuMax®, Biospringer expands its portfolio adding a multi mechanism taste modulator capable of reducing bitterness, masking off notes, strengthening mouthfeel, and improving flavor delivery in complex matrices such as high protein beverages, plant-based milks, reduced sugar drinks, and low fat dairy alternatives.

"ModuMax® is a powerful complement to our current portfolio," said Carmen Arruda at Biopringer. "By combining the depth, umami, and kokumi of yeast extract with ModuMax®'s advanced modulation capabilities, we can help customers push the boundaries of nutritional reformulation without compromising taste."

The acquisition allows Biospringer to provide integrated taste design platforms that build richness and roundness, while ModuMax's unique properties neutralize bitterness, reduce astringency, and enhance creaminess. This solution perfectly complements our existing product range.

ModuMax® will be fully integrated into Biospringer's Go To Market organization, global R&D and application network, enabling customers to access combined expertise, rapid prototyping, and matrix specific sensory optimization.

"Taste remains the biggest barrier to consumer acceptance in better for you products," added Esther de Graaf-Groenendijk at Biospringer. With ModuMax®, Biospringer now offers complete toolkits in the industry to help brands deliver healthier products that taste exceptional."

The acquisition demonstrates Biospringer's commitment to innovation, clean label solutions, and science driven taste design, while expanding its reach into fast growing categories such as plant-based beverages, sports nutrition, and functional wellness.

www.biospringer.com

McCormick Flavor Solutions launches new website

McCormick Flavor Solutions, a leading global flavor developer and trusted end-to-end flavor partner for food and beverage manufacturers, has launched a new website, www.mccormickflavor.com, with an expanded collection of flavor-related resources. The updated website offers insights from leading flavor experts to help developers solve common formulation challenges and guide them in creating delicious products that stand out in the modern marketplace.

www.mccormickflavor.com

California Natural Color welcomes Amy Rapier as Quality Director

California Natural Color, a leading global ingredient supplier of natural colors, premium grape juice concentrates and grape seed extract, announced Amy Rapier has joined the company as Quality Director. In this role, Rapier will oversee product evaluation, sourcing and innovation to ensure quality across all stages of development and manufacturing.

"We are thrilled to welcome Amy Rapier to the California Natural Color team," said Dana Osborn, Marketing Manager at California Natural Color. "Amy is an authority in the quality control field with nearly two decades of experience implementing safety measures in both food and packaging. Her keen eye for detail and rigorous approach to food safety will help ensure we continue to meet our customers' needs, providing naturally derived products that address evolving industry challenges and consistently delivering exceptional quality."



As Quality Director, Rapier will develop, manage and implement food safety standards across ingredient sourcing, new product development, regulatory, compliance and quality services. She will be a safeguard that customers can rely on to deliver the high-performance products they've come to expect from California Natural Color.

www.californianaturalcolor.com

Abbott announces its intention to separate its global nutrition business into an independent, publicly traded company

Abbott, the global healthcare leader, has announced its intention to separate its Nutrition business into an independent, publicly traded company that will be a global leader in the rapidly expanding healthy nutrition market with approximately $8.5 billion in annual sales and a portfolio of iconic brands.

"As we continue to shape Abbott for the future, this separation will benefit both companies, setting each one up for maximum success in its respective market," said Robert B. Ford, chairman and chief executive officer, Abbott. "Our Nutrition business has a unique opportunity to capitalize on the growing demand for healthy nutrition, and it will be better positioned as an independent company to more effectively direct its strategic resources across its priorities. At the same time, Abbott's core higher-growth, innovation-driven portfolio of medical devices, diagnostics and established medicines has compelling growth opportunities to improve the health and lives of people around the world."

With different investment identities and requirements, growth profiles, and innovation cycles, both companies will benefit from resource and capital allocation strategies aligned to their distinct business models.

Nutrition: A leading healthy nutrition company

The Nutrition company will be a global leader in healthy nutrition with approximately $8.5 billion in annual sales. With about 16,000 employees and 14 manufacturing sites, it will have scale across developed and emerging markets and will be well positioned to capitalize on consumer health and nutrition trends, including metabolic health, prevention and wellness.

As an independent company, it will be better positioned to focus its resources more strategically across innovation, commercial activities and key initiatives that advance performance and long-term value creation.

Its portfolio of iconic global brands with leadership positions across infant, pediatric, medical and adult nutrition is highly differentiated in its competitive set and backed by evidence-based scientific research and healthcare professional recommendation, which drives durable organic growth at scale across channels. Abbott's Nutrition portfolio is anchored by category-leading brands, including Ensure, the world's No. 1 adult nutrition supplement drink; PediaSure, the world's No. 1 pediatric nutrition supplement; Glucerna, the world's No. 1 diabetes management nutrition brand; and Similac, the No. 1 infant formula brand in the U.S.

The Nutrition business has continued to innovate its portfolio – underpinned by consumer preferences and trends – with 10 product launches in the first half of 2026, including a high-protein Ensure shake featuring 42 grams of protein, the first and only ready-to-feed liquid infant formula made with whole milk in the U.S. under the Similac brand, and dye-free Pedialyte products.

www.abbott.com

Vitafoods Europe launches partnership with Barcelona charitable foundation to support healthier futures for children

Vitafoods Europe, the leading global event for the nutraceutical, functional food and beverage, and dietary supplement industries, has announced a new partnership with La Fundació privada per a l'Esport i l'Educació de Barcelona (FEEB), a non-profit organisation that uses healthy lifestyle initiatives to provide equal opportunities for young people across Barcelona. The multi-year collaboration will see Vitafoods Europe support programmes that promote healthy nutrition and help to raise awareness of FEEB's work among the event's international community.

Fuelling healthier futures in Barcelona

Since 1999, FEEB has been using sport and education as tools to promote inclusion, wellbeing and equal access to healthy nutrition for disadvantaged children. Working closely with schools, families and community organisations, the foundation delivers programmes that ensure every child has access to opportunities for development, supporting over 2,500 children and young people in Barcelona annually.

As part of the new partnership, Vitafoods Europe will support FEEB's Healthy Third Half programme, which provides nutritious snacks for children after sports sessions, helping them refuel while learning about the role of balanced nutrition and an active lifestyle. It will also see the provision of 200 healthy meals for children with specific dietary requirements, helping ensure every child has equitable access to nutritious food, regardless of their individual needs. Collectively, these initiatives are expected to support over 700 children in the next year.

Vitafoods Europe will also provide a platform to showcase FEEB's work to the international health and nutrition community, helping to build awareness and foster connections with exhibitors, industry partners and local stakeholders. The partnership will include opportunities such as exhibitor engagement days and promotion across the event's channels, helping to extend the reach of FEEB's work and support its' mission.

A shared commitment to positive impact

Facilitated by the Barcelona Convention Bureau, which helps connect international events with local projects to deliver positive impact, the multi-year partnership reflects Vitafoods Europe's commitment to social responsibility and creating a positive legacy in its host city.

Speaking on the programme, Marcelo Brull, Sustainability Manager at Vitafoods Europe, Informa Markets, said, "At Vitafoods Europe, our purpose is to inspire innovation that supports better health through nutrition, and we believe that responsibility extends beyond the exhibition hall. Partnering with FEEB allows us to give back to the city that hosts us by supporting local children and families to lead healthier lives. As an event that brings together the global health and nutrition community, we have a unique opportunity to make a meaningful difference locally and bring the industry together around a shared purpose that outlasts the event."

Sílvia Pérez, Head of Marketing at the Consell de l'Esport Escolar de Barcelona (CEEB), the organisation behind FEEB, added: "Every child should have the opportunity to grow, learn and lead a healthy life. We are delighted to partner with Vitafoods Europe to improve the wellbeing of children and young people across Barcelona. Partnerships like this allow us to go further — strengthening our programmes, reaching more families and working together to create lasting positive change in our community."

For more information about La Fundació privada per a l'Esport i l'Educació de Barcelona (FEEB), **visit: https://feeb.cat/**

ACI Group and IFF explore how 'a little less meat' could deliver a big food-to-go impact

Dr Briony Sayers and IFF application specialist Line Guldbrand to examine how advances in protein formulation could help sandwich manufacturers balance cost, sustainability and consumer expectations

What if millions of sandwiches contained a little less meat? ACI Group and IFF will explore how partial meat substitution could help the UK food-to-go industry tackle rising costs and sustainability pressures when they join forces at the recent British Sandwich & Food to Go Association's (BSA) technical meeting last month.

For food-to-go businesses, the opportunity is to reduce meat content, manage ingredient costs and support sustainability goals while retaining the familiar eating experience consumers expect. Achieving that balance requires careful consideration of ingredient functionality, nutritional composition and processing performance.

Dr Briony Sayers of ACI Group and Line Guldbrand, Application Specialist at IFF, will deliver a joint presentation entitled 'Could partial meat substitution help redefine sustainable food systems?', examining how advances in ingredient technology are making hybrid meat an increasingly practical proposition for sandwich makers and food-to-go manufacturers.

The presentation will draw on IFF's portfolio of functional protein solutions, including SUPRO®, RESPONSE® and TRUPRO®, distributed exclusively in the UK by ACI Group, to demonstrate how different protein technologies can support the development of commercially viable hybrid meat products.

Dr Briony Sayers of ACI Group said: "We have spent years asking how we persuade consumers to replace meat. Perhaps we should be asking what happens if millions of people simply eat a little less of it, through products they already know and enjoy, rather than asking them to completely change their habits.

"For sandwich makers and food-to-go manufacturers, that presents a significant opportunity. A relatively small change to an individual product might seem insignificant, but multiplied across millions of eating occasions, the potential collective impact could be substantial."

Dr Sayers and Guldbrand will explore how isolated soy proteins, soy protein concentrates, pea proteins and other functional ingredients can be used to achieve specific formulation objectives. From gelling and emulsification to water binding and meat-like bite, the presentation will examine how ingredient selection influences product structure, moisture retention and performance during processing and cooking.

The session will also examine the nutritional opportunities associated with partial meat substitution, including the potential to increase dietary fibre, manage saturated fat levels and maintain protein content and quality, depending on the ingredients selected and the final formulation.

Guldbrand said: "Modern protein solutions give manufacturers greater control over how a formulation binds water, holds its structure and delivers the bite consumers expect. By selecting the right combination of functional and textured proteins, development teams can tailor formulations to specific applications and processing requirements.

"The key is matching ingredient functionality to the product and validating performance under its actual processing conditions. A formulation that works well in one application will not necessarily deliver the same results in another, so understanding how different proteins behave is essential."

The session formed part of the BSA's technical meeting for members on 15 October 2026 at Agrial Fresh Produce Ltd. For meeting and membership information, visit sandwich.org.uk.

Developing a hybrid-meat product or reviewing an existing formulation? Speak to ACI Group's food ingredients team about protein selection, functionality and processing performance. For more information, visit **www.acigroup.biz**



Making healthier snacks irresistible: Balancing nutrition, flavour and texture


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Ozge Aksit
Product Manager
Sensient Flavors & Extracts, Europe

A snack can have a compelling nutritional proposition and still disappoint at first bite. Protein may introduce bitterness or chalkiness. Reducing sugar can leave a flavour feeling less rounded. A plant based formulation may bring unfamiliar notes that compete with the chocolate, fruit or caramel consumers expect to enjoy.

For us as a flavour house, the challenge is to help manufacturers bring these elements into balance. Nutritional objectives provide the starting point, but the finished snack needs an appealing identity of its own. Consumers should be able to enjoy the flavour and eating experience alongside the benefits that first attracted them.

Protein bars offer a useful illustration. They bring together convenience, nutritional positioning and expectations increasingly associated with confectionery: indulgent flavours, soft fillings, contrasting layers and crunch. Meeting these expectations requires us to consider taste modulation, flavour creation and the contribution of individual components together.

Understanding the protein base

Before choosing a flavour, we need to understand the base in which it will work. Protein ingredients can introduce bitterness, beany or earthy notes, astringency and perceived chalkiness. Their impact depends on the protein source, its inclusion level and the wider recipe.

The challenge can become more complex when a manufacturer also wants to reduce sugar or use a plant based formulation. High intensity sweeteners may introduce additional off-notes, while an unwanted mouthcoating sensation can affect the finish. Adding a stronger chocolate or caramel flavour may leave these underlying problems unresolved.

We therefore approach masking as part of building the intended sensory profile. Our PureMask™ platform addresses unwanted notes associated with proteins and other functional ingredients, helping desirable flavour characteristics come through.

It is useful to distinguish sensory perception from physical structure. Perceived chalkiness, bitterness and mouthcoating contribute to the

eating experience, but flavour solutions do not replace the formulation work needed to manage a bar's hardness, binding or physical dryness.

Understanding that distinction helps us identify where taste modulation can contribute and where the wider recipe needs attention. The aim being to create a balanced base that gives the chosen flavour room to develop.

Balancing sweetness and perceived richness

Sugar reduction presents a related challenge. Sweetness influences how we experience a flavour, so reducing it can change the balance of the entire product. A chocolate profile may feel less rounded, for example, while other notes become more noticeable.

Our TrueBoost™ Sweetness technology enhances sweetness perception and helps rebalance reduced sugar formulations. We consider it alongside the sweetening system and the flavour profile, rather than treating sweetness as an isolated target.

Perceived richness also matters. Consumers may expect creamy, milky or buttery characteristics even when a recipe uses alternative proteins or excludes dairy ingredients. TrueBoost™ Mouthfeel provides flavour systems that support these characteristics and help shape the perceived eating experience.

Our application work illustrates this in different formats. In vegan biscuits, prototypes using TrueBoost™ Mouthfeel showed increased overall flavour impact. In plant based ice cream, sensory comparisons showed enhanced creamy mouthfeel and dairy-like notes, alongside reductions in oaty and cardboard notes.

These examples demonstrate the importance of evaluating the complete application. The outcome in a biscuit or ice cream cannot simply be assumed in a protein bar. However, the development principle is relevant across formats: sweetness, flavour character and perceived richness need to work together, while bulk, binding and physical texture remain part of the wider formulation.

Bringing the protein bar to life

Once the base is balanced, we can consider how each component contributes to an enjoyable bite. A filling can introduce a contrasting flavour, an inclusion can add crunch, and a coating can help establish the product's indulgent character.

One example developed by our application team is a chocolate and orange protein bar. The finished bar contains approximately 11 g of protein per 60 g portion (19% protein), demonstrating how a nutritional objective can sit alongside a familiar flavour combination.

The concept brings together a soy protein base, masking of chalky and beany off-notes, and flavour modulation to support dairy-like creaminess. A vegan, no added sugar extrudable sauce, flavoured with Brazilian orange extract, provides another dimension.

The value lies in how these elements work together. Orange provides contrast to the chocolate character, while the filling introduces another sensory layer. Masking and modulation help support the intended profile within the protein base.

Manufacturing practicality matters too. Our extrudable sauces are designed to adapt readily to protein bar production lines, helping developers consider the filling as part of the production process as well as the flavour concept.



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Protein inclusions offer another way to combine nutritional contribution with sensory interest. Our range includes pea and soy protein centres with different coatings, allowing developers to introduce crunch and flavour contrast.

This provides flexibility in how protein is incorporated across the product. However, the protein content of an inclusion or base should always be distinguished from the nutritional composition of the finished bar. Each component contributes to the recipe, while the complete formulation determines the final result.

Giving the snack a flavour identity

Addressing unwanted notes is only part of the task. We also want to help manufacturers create snacks that consumers choose for their flavour.

Chocolate, caramel and dessert inspired profiles provide familiar starting points. Fruity combinations offer other possibilities, whether through a filling, coating or inclusion. A chocolate and orange bar, a caramelised coconut concept or a mocha profile can each create a different expectation before the first bite.

Our role is to bring that expectation into the finished application. Flavour should connect the base, filling and inclusions so that the product feels coherent, while retaining enough contrast to make each bite interesting.

BioSymphony™, our platform using biotransformation to create natural flavour compounds, expands the tools available for this work. It supports flavour creation and differentiation alongside our wider portfolio.

For us, the starting question remains the same: what should this snack taste like, and how can each ingredient support that experience? A clear answer gives taste modulation a purpose and helps guide the development of the whole product.

Applying the approach beyond bars

Protein bars concentrate several formulation challenges in one format, but the same principles apply elsewhere in snacking.

In vegan biscuits, for example, we can explore how flavour and perceived richness contribute to a satisfying profile. The application work with TrueBoost™ Mouthfeel shows how flavour modulation can support the overall sensory impact, alongside the recipe and baking process.

Savoury snacks present a different balance. Reducing salt can affect perceived saltiness, overall flavour intensity and savoury character. Our TrueBoost™ Saltiness and TrueBoost™ Umami technologies provide tools for addressing these dimensions as part of a reduced salt formulation.

Here too, we need to evaluate the finished application. A cracker, crisp or baked snack has its own base, seasoning and texture, so the approach needs to reflect those characteristics.

Added fibre and plant based ingredients can introduce further earthy or bitter notes. When several nutritional objectives overlap, it becomes particularly useful to assess their combined sensory effect early. Correcting one note in isolation may leave another aspect of the eating experience out of balance.

Developing nutrition and enjoyment together

Our recommendation is to bring sensory development into the process from the outset. Protein source, sweetness, unwanted notes, flavour identity, fillings and inclusions all influence the finished snack.

As a flavour house, we combine taste modulation, flavour creation and application expertise to help manufacturers work through these choices. The most useful progress comes from tasting and refining the complete product, with its nutritional and sensory objectives considered together.

That gives us a clear ambition: snacks whose nutritional proposition attracts interest and whose flavour makes them enjoyable to eat again.

SENSIENT® FLAVORS & EXTRACTS

www.sensientflavorsandextracts.com

Texture takes centre stage in next-generation food design



Zach Gall
Global Senior Marketing Manager, Wholesome Ingredients Texturants
ADM



While product innovation has increasingly focused on wellness, clean labels and reformulation, texture has often been viewed as an attribute to optimise rather than a starting point for product design. New consumer research from ADM, covering 12 food and beverage categories across five markets – Spain, the Netherlands, the US, Brazil and Indonesia – finds that 81% of consumers say texture plays a significant role in whether they find a product enjoyable.[1] At the same time, it's not just a sensorial cue. On average across the categories studied, texture ranks among the top purchase drivers, behind only flavour/taste, ingredient quality and price/value.[1]

Consumers are also signalling an appetite for something new. Globally, 78% are open to trying new or unexpected texture combinations and 73% say products combining different textures are more exciting to eat.[1] Growing consumer expectations for sensory engagement will create opportunities for brands to experiment with texture-focused ingredient solutions and exciting sensory experiences. For brands competing in crowded categories, texture is moving to the centre of how the next generation of food experiences are developed.

Texture Extends Beyond Sensory Appeal

Texture's importance as a purchase-driver puts it in close competition with health in certain markets. In Spain and the Netherlands, the two attributes rank nearly equally, reinforcing texture's growing influence.[1]

Its effect also extends beyond its own ranking, due to texture's impact on sensory perception as a whole. Nearly eight in 10 consumers (79%) say texture affects how they experience flavour, and 70% say a product can taste good but still fail to deliver enjoyment if the texture isn't right.[1] It is critical for formulators to evaluate products through a multisensory lens that considers texture, flavour and mouthfeel to best provide the sensory engagement consumers seek.

Additionally, providing a multi-textured experience can elevate product perceptions: 70% link multiple textures with indulgence, 68% say they feel more satisfying or filling, 64% associate them as premium, 64% say they feel higher quality and a further 61% say they feel more homemade.[1]

Individual textures also act as functional cues. Creamy, silky/velvety, smooth and tender textures signal premium quality, while thicker, denser and chewier ones tend to make for a more filling or satisfying perception.[1] For product developers, every texture decision is also a positioning decision.

Keep the Base, Add the Contrast

When asked to build their ideal products using a selection of textures, consumers frequently gravitated toward a familiar two-texture foundation, with a third texture offering opportunities for differentiation. Creamy and smooth/even emerged as the preferred foundation in six of the 12 categories: yoghurt, ice cream, beverages, smoothies, sauces and spreads. Additional textures can then introduce contrast, such as airy or crunchy elements against a smooth base.

The opportunity, then, is not to make everything more texturally complex. It is to preserve the texture consumers expect, while introducing purposeful contrast. When offered a wide palette of inclusions, coatings and fillings, 55% of consumers chose to add an additional textural element, though that appetite varies sharply by category.[1]

Baked goods: They engender the strongest appetite for added texture of any category, with 76–89% of consumers across markets choosing an inclusion, coating or filling when one was available.[1] The soft foundation is preferred, anchored by moist and tender/pillowy textures. When additional texture options were introduced, buttery characteristics gained more than 40 percentage points, with buttery and tender/pillowy emerging as a preferred combination. This suggests opportunities for manufacturers to develop soft, tender baked goods with rich, buttery mouthfeel, complemented by contrasting inclusions such as caramelised nuts or seeds.

Snack and nutrition bars: This category demonstrates the range of texture combinations consumers find appealing. While smooth/even and soft/tender emerged as the leading two-texture foundation, chewy + chunky + crunchy/crispy was the most popular three-texture combination. When additional options were introduced, creamy coating gained more than 40 points.[1] Rather than averaging the two camps, the category has room for genuine texture architecture: a soft, chewy centre, a chunky, crunchy layer and a creamy coating that brings the elements together. Ingredients like quinoa crisps and soy crisps, along with seeds, can help manufacturers deliver satisfying crunch and textural intrigue for differentiated product experiences.

Sugar confectionery: It stands out for the breadth of textures consumers find appealing: creamy and chewy are tied at 71%, followed by fluffy/airy at 67% and crunchy at 62%.[1] No single texture owns the category when consumers build

combinations, but given more choices, the preference shifts to chewy and soft/tender, with juicy/liquid-filled textures gaining 28 points as the preferred third characteristic.[1] This creates opportunities for layered sugar confectionery experiences that combine chewiness and softness with a contrasting liquid centre.

Ice cream: Creamy, smooth/even and fluffy/whipped is the leading global build and holds in four of five markets, but Spain offers an interesting variation: creamy, crunchy and smooth/even, chosen by 28.8% of Spanish consumers versus 7.1% elsewhere.[1] Chunky inclusions (+26 points) and snappy coatings (+20 points) also gain significantly when offered, and 70% of consumers added at least one of these elements.[1] For premium ice cream, the playbook is clear: protect a creamy, smooth base and let luxurious inclusions, coated formats and textural contrast do the differentiating.

Chocolate: Chocolate supports multiple viable texture types, including creamy (77%), smooth/even (72%), soft/melty (72%) and crispy (70%).[1] Silky/velvety is the leading premium cue in the category and is closely associated with elegance.[1] Lecithin emulsifiers, such as a plant-derived de-oiled lecithin, can help manufacturers achieve the smooth, silky and consistent textures that support premium chocolate quality.

Beverages: Smooth/even is the highest-rated textural characteristic (71%), followed by creamy and icy/slushy (68% each) and fizzy (61%). While texture plays a comparatively smaller role in beverage preferences than in some other categories studied, these findings demonstrate how manufacturers can use different mouthfeel characteristics to create distinctive drinking experiences.[1]

Smoothies and shakes: Creamy and smooth/even is the leading texture combination, but globally consumers prefer thin/drinkable smoothies and shakes (57%) over chunky (47%), which might be a surprise to those who like pineapple bits in their blends or cookie crumbles in their malts. Regional preferences differ, however, with chunky/pulpy textures appealing to 74% of Brazilian consumers, highlighting opportunities for market-specific formulation.[1]

Sauces and spreads: Restraint pays in this category. Appetite for added texture is the lowest in the study, at 23–37% across markets, while agreement on the core is among the clearest: creamy and smooth/even, most often completed by silky/velvety.[1] Yet, sauces are tied with beverages for consumers being least satisfied with current textures at 31%, so the opportunity lies in perfecting the base rather than adding complexity.



Global Texture Principles + Local Execution

Consumer expectations vary by category and by geography, which makes texture a design challenge as much as a formulation one. Some foundations travel well: creamy, smooth, crunchy and tender textures are broadly credible across all five markets studied.[1] The differences show up in secondary cues and in the emotions textures evoke.

Across all texture-category combinations tested, indulgence is the emotion most often associated with texture, followed by comfort, freshness and calm.[1] Each texture has its own emotional vocabulary: creamy reads as indulgent and comforting, smooth/even as calming, silky/velvety as elegant, and crunchy/crispy as fresh, surprising and playful.[1] Spain and the Netherlands, for example, show how that vocabulary shifts by market.

Spain: freshness, fluidity and one deliberate contrast. Spanish consumers favour lighter, more fluid and crunchier experiences, with above-average appeal for thin/drinkable smoothies (71% vs 57% globally), crunchy ice cream (72% vs 63%), crunchy/chunky chocolate (72% vs 62%), crunchy baked goods (72% vs 64%) and thin/drinkable cultured dairy (61% vs 52%).[1] They are more selective about richness and irregularity: soft/melty chocolate reaches 49% in Spain versus 72% globally, and chunky/pulpy smoothies 32% versus 47%.[1] These textures connect strongly to freshness and discovery, with crisp beverages registering as 34% "fresh" and crunchy ice cream "surprising" 22% of Spaniards.[1]

The research grouped textures into seven families — creamy, airy, crisp, chewy, wet, particulate and firm — and almost half (49%) of Spanish combinations span exactly two, the highest share of any market.[1] Creamy + wet and creamy + crisp are the most prominent pairings. Spain favours the classic one-contrast product: a familiar base with a single, deliberate point of difference, whether that is crunch in ice cream or a thinner, pourable consistency in sauces.

The Netherlands: focused, familiar and credible. Dutch consumers are more selective overall, recording lower average appeal across many textures. However, category-defining textures remain strong, including creamy ice cream (79%), crunchy salty snacks (76%), crunchy baked goods (71%) and creamy yoghurt (75%).[1] More distinctive textures can work when they feel credible within the category: gooey sauces reach 59% versus 45% globally, and crumbly baked goods 51% versus 39%.[1] The Netherlands is also the only market whose leading baked goods build – crispy + crumbly + crunchy – contains no soft or moist texture at all.[1] In the Netherlands, texture innovation is likely to work best when it starts from a recognisable category cue and delivers one clear emotional promise, like an indulgently creamy ice cream.[1]

For manufacturers, this reinforces the importance of balancing recognisable sensory attributes with opportunities for innovation that align with local preferences.



From Sensory Optimisation to Strategic Innovation

Consumers' willingness to make trade-offs further highlights the perceived value of achieving an ideal texture. Globally, 56% would accept a

different appearance to achieve their ideal texture combination, 52% would accept a higher price and 46% would accept additional processing or a reduced shelf life.[1] The limits are telling, though: only 39% would accept a less favourable taste and 38% a less healthy or nutritious product.[1] Texture creates value, but it needs to complement core product benefits rather than replace them. Thresholds vary, too: the Netherlands is the least willing of the five markets to trade other attributes for improved texture.[1]

The research also identifies opportunities to close gaps between current texture experiences and consumer expectations. Globally, consumers are 22% more likely to be highly satisfied with current flavours than with current textures, with the largest gaps in beverages (31%), sauces (31%) and sugar confectionery (25%).[1] For European manufacturers, the gap is wider still, at 28% in both Spain and the Netherlands, compared with 23% in Indonesia, 22% in the US and 16% in Brazil.[1] Flavour has long been the focus of optimisation, making texture a comparatively under-utilised lever to pull.

An emerging consumer base introduces additional texture considerations. Among anti-obesity medication (AOM) users, like GLP-1 receptor agonists, 55% say some textures have become harder to tolerate, mostly the ones associated with overly processed food like greasy/oily, creamy/rich, chewy and sticky, while smooth or liquid textures are the least problematic.[1] Yet AOM users are also more likely than non-users to say texture affects how much they experience flavour (83% vs 76%).[1] For this increasingly important group, well-executed texture can delight, and poorly executed texture might deter.

Bringing texture into strategic innovation means treating it as a design requirement from the outset, not a late-stage fix. Define the base consumers expect, add a contrast that sets a product apart and gives it the emotional and functional signals needed in each market. That complexity increasingly makes the case for working with ingredient partners that offer a wide range of products and formulation services. A global supplier with a broad portfolio spanning texturants, plant-based ingredients, taste modulation solutions and more can provide the flexibility and optionality to build a texture platform once and adapt it market by market – without compromising the taste and nutrition consumers are least willing to trade away.

References:
[1] ADM Outside Voice , Texture Report, 2026
[1] ADM Outside Voice , Beverage Lifestyle Report, 2026

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Lactate jumps from the lab to elite cycling: the next big trend in sports nutrition

For decades, lactate has been associated with muscle burn, fatigue, and soreness. It was measured precisely to pinpoint when an athlete reached their physiological limit, and traditional scientific consensus advocated the need to "eliminate" it as quickly as possible. However, in 2026, the world's top cyclists have begun deliberately consuming it as part of their energy strategy in major competitions.

During the recent Tour de France, Tadej Pogačar utilized a novel development from a sports nutrition brand in collaboration with his team, UAE Team Emirates XRG, which combined a high amount of carbohydrates with 10 grams of sodium lactate. Simultaneously, another Spanish firm broke onto the scene with a pioneering formulation based on alternative lactate sources. As the final stretch of the international season approaches—featuring highly demanding events like La Vuelta a España—this movement is shaping up to be one of the key nutritional trends to watch in the peloton.

But what happened for a molecule that was once targeted for elimination to end up positioning itself as a strategic ingredient in the diet of an elite athlete?

An 1980s concept reaching a new dimension today

The theoretical basis of this revolution is not new. In the 1980s, researcher George Brooks proposed the Lactate Shuttle theory, which posited that lactate was not a waste product, but a dynamic molecule capable of transporting energy between different cells and tissues.

Decades of subsequent research have consolidated much of this paradigm shift. The body produces lactate continuously—even when oxygen is available—and organs such as the heart, brain, and other muscle groups can use it directly as a preferred, rapidly available fuel.

"For many years, lactate was misinterpreted due to correlation: it increased when intensity spiked and fatigue set in, leading to the conclusion that it was part of the problem and assigning it incorrect causality.

The major conceptual leap has been understanding that it plays a leading role in the body's energy system," explains Carlos Morales, Product Manager at Aurora Intelligent Nutrition (AIN).

However, this theoretical reinterpretation alone does not explain why the molecule is making the jump to professional cycling specifically in 2026.

Why is this opportunity emerging now?

According to AIN's R&D&i team, the key lies in the convergence of three factors:

- Advances in Physiological Science: Beyond acting as fuel, current research studies lactate as a signaling molecule (termed a "lactormone"), capable of transmitting metabolic information to cells. The 2019 discovery of lactylation and findings regarding its mitochondrial impact confirm its regulatory role beyond its energetic function.
- Biotechnological and Formulation Innovation: For years, significant barriers existed regarding concentration, flavor, and, above all, gastrointestinal tolerance. New formulation developments appear to have overcome these limitations, delivering nutritionally relevant doses without causing digestive distress under high intensities.
- Validation in High-Level Competition: The fact that several independent developments have reached competition almost simultaneously indicates that the industry has been viewing this field with enormous interest for some time, resulting in a genuine technological race to provide distinct solutions to the same challenge.

"When different research groups, nutrition companies, and elite teams simultaneously begin exploring the same molecule, we are not looking at a passing fad. We are witnessing a new way of understanding energy nutrition in endurance sports and one of the most significant innovation streams of the next decade," notes Morales.

The next generation of Endurance Fueling

Although the apparent success of oral supplementation seems to be confirmed, questions remain regarding exact dosages, key consumption timing, and optimal synergy with carbohydrates. The scientific and technical debate is open, and late-season stage races alongside other ultra-endurance events will serve as ideal proving grounds to observe the real evolution of this trend.

For AIN, the challenge is not simply adding lactate to a traditional formula. The key lies in perfecting the chemical matrix: selecting the appropriate chemical form of lactate, integrating it harmoniously with traditional sources of glucose and fructose, and ensuring maximum tolerance under extreme exertion.

The company has been actively working in this space for some time to develop its first advanced solutions based on exogenous lactate, positioning itself as a strategic partner for brands seeking to lead this trend.

"The history of lactate perfectly demonstrates how innovation in nutrition works," concludes Morales. "First, our understanding of physiology evolves. Then, the technology emerges to translate that finding into a product. Finally, elite sport steps in to test just how far it can take us in the real world."

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Building the architecture of taste: From umami amplification to kokumi depth

How targeted yeast extracts can help food developers build intensity, mouthfulness and flavour continuity



Flavio Meola is Global Applied R&D Manager at Lallemand Bio-Ingredients, leading application development in the savoury ingredients market. With extensive experience in yeast-derived ingredients, flavour technologies, and food formulation, he bridges science and industrial application to deliver value-driven solutions for the food industry.
Flavio leads international R&D teams across Europe and North America and collaborates closely with customers and commercial partners to translate scientific insights into practical approaches for improving taste, flavour functionality, and product performance. His work focuses on the intersection of flavour chemistry, consumer preference, and ingredient innovation.



Creating a food that tastes stronger is relatively straightforward. Creating one that tastes complete is much more challenging.

Consumers do not experience flavour as the concentration of a single taste compound. Instead, the eating experience develops over time. There is the first taste impact, followed by the development of savoury intensity, interaction with aroma and texture, a sense of body and mouthfulness and, finally, the persistence of flavour after swallowing.

Successful flavour formulation is therefore not simply about intensity. It is about architecture.

Within this architecture, two concepts are particularly important: umami and kokumi. They are related, and they can interact within the same food, but they should not be regarded as interchangeable.

Umami is one of the five basic tastes and is primarily associated with glutamate. Kokumi, in contrast, is not considered a basic taste. Kokumi-active substances can modify an existing taste experience, increasing sensory characteristics such as thickness, mouthfulness and continuity. Contemporary scientific literature identifies γ-glutamyl peptides among the important kokumi-active compounds and links their activity to the calcium-sensing receptor, CaSR.

Understanding this distinction provides food developers with a more precise approach to flavour design. Rather than asking simply, "How can we make this product more tasty?", formulation can begin with a different question:

Which dimension of the taste experience is missing?

This way of thinking also provides the scientific framework behind three specialised yeast extracts developed by Lallemand Bio-Ingredients: nucleotide-rich High-Lyfe® 580 A and High-Lyfe® 583 A, and glutathione-rich High-Lyfe® 605 A.

Umami: understanding the difference between stimulus and amplification

Scientific literature frequently groups glutamate, IMP and GMP together as "umami-related substances". For food formulators, however, it is important to understand exactly what this terminology means.

The description does not imply that glutamate, IMP and GMP have identical sensory functions.

Glutamate is the principal molecular stimulus associated with the characteristic savoury taste recognised as umami. The 5′-ribonucleotides inosine 5′-monophosphate, or IMP, and guanosine 5′-monophosphate, or GMP, are described as umami-related substances because they participate in the same sensory system and can strongly potentiate the umami response in the presence of glutamate.

Therefore, glutamate, IMP and GMP are often discussed together because all three contribute to the overall umami response, even though their contribution is not identical.

From a formulation perspective, the distinction is fundamental:

Glutamate provides the primary umami stimulus, while IMP and GMP act as powerful amplifiers of that glutamate-driven response.

This means that IMP and GMP should not simply be regarded as additional sources of umami taste. Their particular technological value lies in the synergy between nucleotides and the glutamate already present in the food system.

This synergy is one of the reasons nucleotide-rich ingredients can produce a substantial sensory effect at relatively low incorporation levels. Instead of simply introducing more flavour, they can increase the effectiveness of the existing umami system.

The architecture becomes more important than intensity

This distinction leads to a broader consideration in flavour development.

A formulation can have sufficient glutamate and still lack the desired savoury impact. Conversely, a product can possess substantial umami intensity but still appear thin, disconnected or short-lived.

These are different sensory problems and they require different technological approaches.

A useful way of considering the architecture is through three complementary functions:

Umami foundation: glutamate establishes the primary umami stimulus.

Umami amplification: IMP and GMP reinforce the glutamate-driven response.

Kokumi modulation: glutathione and other kokumi-active substances contribute to another dimension of perception associated with mouthfulness, thickness and continuity.

This is particularly relevant to yeast-derived ingredients because controlled processing of yeast can generate extracts with distinctly different compositions and, consequently, different sensory functionalities.

Rather than considering all yeast extracts as interchangeable sources of savoury taste, they can therefore be designed and selected according to the specific sensory gap in a formulation and have a real technological role in the formulation.

High-Lyfe® 580 A and 583 A: targeting umami amplification

High-Lyfe® 580 A and High-Lyfe® 583 A were developed around the nucleotide component of this architecture.

Both are yeast extracts produced from primary-grown Saccharomyces cerevisiae. They contain high levels of the naturally occurring 5′-nucleotides GMP and IMP.

Their technical function should therefore not simply be described as "adding umami".

A more precise description is amplifying the underlying umami system of the food.

This becomes particularly relevant in formulations containing glutamate naturally derived from ingredients such as vegetables, proteins, fermentation-derived materials or other components of the recipe. The nucleotide-rich yeast extract can interact with that underlying taste architecture, reinforcing savoury perception without relying exclusively on the addition of another dominant flavour.

However, an important point emerged during the development of the two ingredients: having the same nucleotide specification does not necessarily result in identical sensory performance.

Composition defines one element of functionality, but the overall sensory profile of the yeast extract determines how that functionality is expressed in the finished food.

High-Lyfe® 580 A: clean and versatile amplification

High-Lyfe® 580 A was developed with a comparatively neutral sensory profile.

It delivers a strong, clean umami-enhancing effect while harmonising existing taste characteristics. Its neutral profile means that it can build overall taste perception without imposing a strong additional flavour direction.

This apparent neutrality is technologically valuable.

Consider a creamy herb sauce, for example. The objective may be to reinforce its savoury foundation without shifting the product towards chicken, beef or another recognisable flavour profile. Similarly, the freshness of tomato, vegetables or herbs should not necessarily be hidden simply because greater savoury impact is required.

In these situations, amplification should support the original flavour identity rather than replace it.

High-Lyfe® 580 A can therefore be regarded as a clean umami amplification tool, particularly relevant when developers want to reinforce an existing flavour system while maintaining flexibility over the final flavour direction.

High-Lyfe® 583 A: amplification with savoury direction

Other applications present a different challenge.

In meat, poultry, meat alternatives, gravies and strongly savoury formulations, maintaining sensory neutrality may not be the principal objective. Here, the developer may want nucleotide-driven umami amplification together with a more clearly defined savoury character.



High-Lyfe® 583 A addresses this different formulation space.

Like High-Lyfe® 580 A, it contains high level of 5′-GMP and 5′-IMP with a more meaty direction, enhanced mouthfulness, long-lasting flavour.

Consequently, the distinction between High-Lyfe® 580 A and High-Lyfe® 583 A is not primarily the amount of nucleotide present. The important distinction is how the nucleotide-rich yeast matrix expresses itself sensorially.

High-Lyfe® 580 A is designed for cleaner amplification and preservation of the existing flavour direction. High-Lyfe® 583 A couples amplification with a stronger savoury identity.

For the food developer, this provides an additional degree of control over the architecture of the finished product.

Beyond umami: why a food can be savoury but still feel incomplete

Umami amplification does not solve every sensory challenge.

A product can have a powerful savoury profile but still disappear too rapidly after swallowing. A reduced-fat soup can have appropriate salt and umami intensity while lacking body. A plant-based product can deliver sufficient savoury taste while the complete experience remains less integrated than the conventional product it is intended to reproduce.

In these situations, simply increasing the concentration of umami components may increase intensity without solving the underlying structural problem.

This is where the concept of kokumi becomes particularly valuable.

Kokumi is associated with characteristics commonly described as thickness, mouthfulness and continuity. Rather than constituting a sixth basic taste, kokumi-active substances modulate other sensory inputs and contribute to the perception of a more complete and integrated flavour experience. Modern reviews describe γ-glutamyl peptides as an important class of kokumi-active substances.

The distinction can also be understood through the broader Japanese concept of koku, which describes attributes of richness, body and complexity. Kokumi-active compounds can contribute to the taste-related component of this experience. The science therefore allows us to distinguish the experience of depth and richness from the molecular mechanisms that can help create it.

Glutathione: a different approach to sensory modulation

One of the best-known γ-glutamyl compounds associated with kokumi is glutathione, or GSH (γ-Glu-Cys-Gly).

Research into kokumi has connected GSH and other γ-glutamyl peptides with activation of the calcium-sensing receptor (CaSR). This provides a molecular model for understanding why these compounds can modify the sensory properties of foods without acting simply as another conventional basic taste stimulus.

This mechanism is conceptually distinct from nucleotide-mediated amplification of glutamate-driven umami.

That distinction matters because it gives food developers another sensory lever.

Where IMP and GMP primarily offer a way of reinforcing the umami component of a savoury system, GSH-rich ingredients can be approached from the perspective of kokumi-related depth, mouthfulness and continuity.

The objective is no longer simply to make the

savoury signal stronger. It is to change its shape in the mouth and persistence over time.

High-Lyfe® 605 A: targeting the kokumi dimension

High-Lyfe® 605 A was developed around this different biochemical and sensory principle.

It is a yeast extract produced from primary-grown yeast and contains elevated concentrations of glutathione, cysteine peptides and cysteine compounds.

Its technical positioning therefore differs fundamentally from the nucleotide-rich High-Lyfe® 580 A and 583 A.

High-Lyfe® 605 A is described as a yeast rich in kokumi active compounds contributing to deliciousness, mouthfulness and continuity, while also contributing meaty flavour characteristics and supporting a balanced taste profile.

From the perspective of taste architecture, High-Lyfe® 605 A therefore represents a tool for



building depth around the existing taste system rather than simply increasing the intensity of one component of it.

Combining the different dimensions of taste

The distinction between the three High-Lyfe® ingredients provides a practical framework for formulation.

High-Lyfe® 580 A offers a concentrated nucleotide-rich solution when the aim is clean amplification of an existing umami system while preserving the original flavour direction.

High-Lyfe® 583 A combines the same high nucleotides specification with a stronger savoury, meaty sensory direction.

High-Lyfe® 605 A, in contrast, targets another dimension through elevated levels of glutathione and related cysteine compounds and is associated with kokumi properties including mouthfulness and continuity.

These are therefore not three ingredients attempting to achieve the same sensory effect at different strengths.

They provide access to different parts of the taste architecture.

A formulation lacking sufficient umami impact can benefit from nucleotide-mediated amplification. If the original flavour needs to remain neutral and clearly recognisable, High-Lyfe® 580 A provides one approach. Where meat or poultry character forms part of the desired profile, High-Lyfe® 583 A provides another.

When the issue is instead insufficient body, integration or flavour persistence, simply increasing umami may not address the problem. A GSH-rich kokumi solution such as High-Lyfe® 605 A provides a different route.

And where a formulation lacks both initial impact and subsequent depth, umami amplification and kokumi modulation become complementary rather than competing strategies.

Yeast extract as a precision formulation tool

This perspective also changes how yeast extract itself can be considered. Historically, yeast extracts have often been discussed broadly in the context of savoury taste. A deeper understanding of their composition and sensory properties now enables a more targeted approach, linking specific components and profiles to specific taste characteristics.

A yeast extract rich in nucleotides does not necessarily perform the same function as one developed around glutathione. Even two yeast extracts with comparable concentrations of IMP and GMP may produce distinctly different sensory profiles because the nucleotide fraction exists within a more complex yeast-derived matrix.

This opens the possibility of treating specialised yeast extracts as precision tools for sensory design.

Selection can therefore begin with diagnosis rather than dosage:

Is the formulation missing umami impact?

Does that amplification need to remain sensorially neutral or contribute a savoury flavour direction?

Is the real problem instead mouthfulness, integration or continuity?

These questions lead to very different ingredient choices.

From flavour enhancement to flavour engineering

Modern food formulation increasingly requires this more nuanced approach.

Reducing or replacing ingredients can affect much more than one basic taste. Plant-based formulations may introduce complex intrinsic flavour characteristics requiring integration into the overall sensory profile. Changes in fat, salt or other components can alter body, balance and flavour persistence as well as initial intensity.

Simply increasing flavour concentration cannot address all these effects.

The alternative is flavour engineering: identifying the sensory dimension that is limiting the eating experience and selecting molecular tools capable of addressing that specific dimension.

Within this framework, glutamate forms the foundation of the umami signal. IMP and GMP can amplify that signal. GSH and other kokumi-active compounds address a complementary sensory dimension related to mouthfulness and continuity.

Scientific research similarly points towards the importance of the relationship between umami-related substances and kokumi in creating overall palatability, rather than treating either phenomenon in isolation.

Designing a more complete taste experience

The future of savoury formulation is therefore unlikely to be simply about making flavours stronger.

It will be about understanding the molecular and sensory characteristic of the formulation and engineering them to be able to offer the best experience for the consumers.

Once flavour is considered in these terms, formulation moves beyond enhancement towards the deliberate construction of the complete sensory experience.

Because ultimately, memorable foods are rarely those that simply deliver the strongest first impression. They are those in which impact, depth, balance and persistence work together, from the first taste to the final lingering sensation.

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Kerry opens its new regional Innovation Centre at Expo City Dubai

Kerry has opened its new regional Innovation Centre at Expo City Dubai. Edmond Scanlon, CEO of Kerry Group, opened the Centre with His Excellency Abdulaziz Al Jaziri, Deputy CEO and Chief Operating Officer of the Dubai Future Foundation, in the presence of senior leaders from government and industry.

The Kerry Innovation Centre at Expo City Dubai turns global ideas into local products. It brings together trends, consumer insights and ingredients from Kerry's network around the world, and helps food and drink companies in the region convert ideas into locally tailored products in record time, cutting development cycles from months to days.

"Our new Innovation Centre reflects our long-term commitment to the Middle East and to helping our customers grow. By bringing Kerry's global expertise in taste and nutrition closer to customers in the region, we can work together to create better products that reflect local tastes and evolving consumer needs. Our collaboration with Dubai Future Foundation puts that ambition into practice, exploring how we can improve the nutritional profile of familiar foods without compromising the taste people love." says Edmond Scanlon, CEO, Kerry Group

Inside the Centre, customers work side by side with Kerry's chefs and scientists in shared kitchens, application labs and a sensory room, where new products are tasted, tested and refined before they go to market. The Centre is supported by Kerry's proprietary AI tools, such as Kalaido, for product innovation, and Nexus, for recipe formulation, drawing on market data and the expertise of more than 1,300 Kerry scientists working across 60 technology and innovation centres all around the world.

The opening marks the next chapter in Kerry's commitment to the UAE. Kerry opened its first development centre in Dubai in 2013, and the new Innovation Centre at Expo City Dubai extends that work to customers across the Middle East and beyond.

"Our customers across the region want products made for local tastes, and they want them fast. Our new Innovation Centre gives them a place to do that. With Kerry's proprietary AI tools such as Kalaido, and our scientists working side by side with local chefs, we can taste, test and refine new ideas right here in Dubai." says Peter Dillane, President and CEO, Kerry APMEA

Guests toured Kerry's labs and sensory room with Kerry's scientists, met the teams taking part in the Taste of Tomorrow Challenge, and tasted early ideas from Kerry's chefs.

"Kerry's flagship Innovation Centre here at Expo City Dubai is raising the bar for the future of food in the UAE and the wider region. We are proud to have Kerry as part of our thriving community of pioneering businesses – a future-focused free zone and a Green Innovation District that is actively driving positive, sustainable change – and look forward to seeing what exciting new solutions will emerge." says Marjan Faraidooni, Chief People Officer and Chief of Education and Culture, Expo City Dubai

The Taste of Tomorrow Challenge

To mark the opening, Kerry and Dubai Future Foundation launched the Taste of Tomorrow Challenge, a new collaboration for Dubai Future Week. The Challenge asks a question that matters to every family in the UAE: can the region's favourite foods be made healthier without losing the taste people love?

Teams of local chefs and creators will work with Kerry scientists to remake traditional Emirati and Dubai dishes, from karak and laban to luqaimat, with less salt, sugar or fat and the same great taste. Each team takes on one of three briefs inspired by Dubai Future Week: live longer, perform better and feel better.

The teams will develop their dishes in Kerry's kitchens in just 10 days, from 9 to 19 November, and their progress will be filmed and shared by Kerry, Dubai Future Foundation and the creators. On Friday 20 November, the teams will present their dishes at Dubai Future Week, pitching to a panel of judges and offering tastings to visitors and media. Awards will go to the best dish for each brief, a crowd favourite and an overall winner.

Dubai Future Week is organised by Dubai Future Foundation under the directives of His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai. It expects more than 10,000 inventors, investors, policymakers and specialists from around the world, and its programme explores how we will live and feel in the future, from longevity and sport to mental health, food and nutrition.

"Dubai Future Week gives people the opportunity to experience new ideas and help shape them. Our partnership with Kerry applies this approach to food, bringing chefs and scientists together to explore how familiar dishes can offer better nutrition. We look forward to seeing what the teams create and hearing what the public thinks." says His Excellency Abdulaziz Al Jaziri, Deputy CEO and Chief Operating Officer, Dubai Future Foundation



New study reveals skin health potential of pomegranate extract

POMASKIN™, a clinical trial evaluating the benefits of Pomanox®, shows promising findings for facial pigmentation, hydration and elasticity

A new clinical study highlights the potential of Pomanox®, Euromed's standardised pomegranate extract, for beauty-from-within applications. The randomised, placebo-controlled trial found promising results for facial pigmentation, hydration and elasticity, with favourable effects on pigmentation observed as early as four weeks.[1] The findings expand the growing body of clinical research on Pomanox® and opportunities for the creation of new skin health formulations.

Previous randomised human trials investigated the benefits of Pomanox® for exercise, cognitive performance, cardiovascular health and inflammatory markers.[2,3,4,5] This research has now been extended to skin health, with the latest trial building on earlier in vitro findings by Roger Mariné-Casadó and colleagues at the Catalonian research organisation Eurecat.

As laboratory studies have already shown that Pomanox® influences collagen and hyaluronic acid metabolism, reduces reactive oxygen species in UV-exposed human fibroblasts and inhibits tyrosinase, an enzyme involved in melanin production.[6] These observations provided the scientific rationale for investigating the extract in humans.


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Conducted at Eurecat's Nutrition and Health Unit in Reus, Spain, the randomised, triple-blind, placebo-controlled trial enrolled 66 women aged 30-65 with hyperpigmented facial spots. Participants received either 367mg or 700mg of Pomanox®, or a daily placebo for 12 weeks. Of these, 64 were included in the modified intention-to-treat analysis. Exploratory analyses of the 367mg/day group showed favourable results compared with placebo across two pigmentation measures: the selected facial spot and the melanin index of surrounding skin. Differences were already apparent after four weeks, including a reduction in spot pigmentation. The favourable effect on the melanin index outside the spot persisted through week twelve. At the end of the study, the selected-spot melanin index had also decreased more in the 367mg/day group than in the placebo group.


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Potential benefits for hydrationand elasticity

At twelve weeks, exploratory analysis showed a significantly more favourable change in ydration with 367mg/day than with placebo. As hydration declined in the placebo group, the findings suggest that Pomanox® may help maintain skin hydration under the study conditions. Skin elasticity also showed encouraging developments, with significant improvements from baseline observed with 700mg/day at both four and twelve weeks, and 367mg/day at twelve weeks. In the full study population, the comparison between 700 mg/day and placebo showed a trend towards improved elasticity.

Exploring biological mechanisms

The researchers also investigated antioxidant-related parameters and polyphenol metabolism to better understand the biological context of the skin findings. At twelve weeks, the 367mg/day group showed non-significant trends towards higher glutathione levels compared with placebo, and higher superoxide dismutase levels compared with baseline. These preliminary signals warrant further investigation. Levels of urinary polyphenol metabolites, including urolithin A glucuronide, also increased in both Pomanox® groups, providing evidence of the absorption and metabolism of pomegranate compounds.

Insights into skin and gut microbiota

Exploratory microbiota analyses offered further avenues for research. In the skin microbiota, nominal increases in Bifidobacterium and Lactobacillus were observed with Pomanox®. Both genera have been linked, in previous research, to protective skin mechanisms. Enterococcaceae increased across all study groups, including placebo, while changes were also observed in gut microbiota. Both Pomanox® groups showed nominal increases in Prevotella, a genus associated with fibre-rich diets and, at 367mg/day, gut-friendly Akkermansia also increased nominally compared with placebo. This genus is being investigated for its potential role in mucosal and epithelial barrier regulation. While these observations suggest an interesting direction for future research into pomegranate polyphenols and the skin-gut relationship, effects on barrier function or inflammation are yet to be established.

"POMASKIN™ adds an exciting clinical dimension to the Pomanox® research programme. The findings highlight the extract's potential for beauty-from-within applications and provide a valuable basis for formulation development, as well as further clinical investigation," says Andrea Zangara, Scientific Communication Advisor at Euromed.

Pomanox® P30 is standardised to contain at least 30% punicalagins and is produced using Euromed's proprietary water-based Pure-Hydro Process®. The extract combines Mediterranean botanical sourcing, controlled composition and a growing body of scientific research.

References:

1 Costa, A., Calderón-Pérez, L., Domingo-Tàrrech, A. et al. Effects of pomegranate extract Pomanox on facial skin aging parameters: a randomized triple-blind placebo-controlled trial. Sci Rep 16, 3019
2 (2026). https://doi.org/10.1038/s41598-026-72115-82 Torregrosa-García et al. Nutrients. 2019;11:721. doi:10.3390/nu11040721.
3 Farhat et al. Geriatrics 2025, 10(1), 29. doi: 10.3390/geriatrics10010029.
4 Al-Dujaili et al. Antioxidants. 2022;11:2124. doi:10.3390/antiox11112124.
5 Farhat et al. Nutrients. 2025;17:1235. doi:10.3390/nu17071235.
6 Mariné-Casadó et al. Int J Food Sci Nutr. 2023;74:51–63 (published online 2022). doi:10.1080/09637486.2022.2152189.

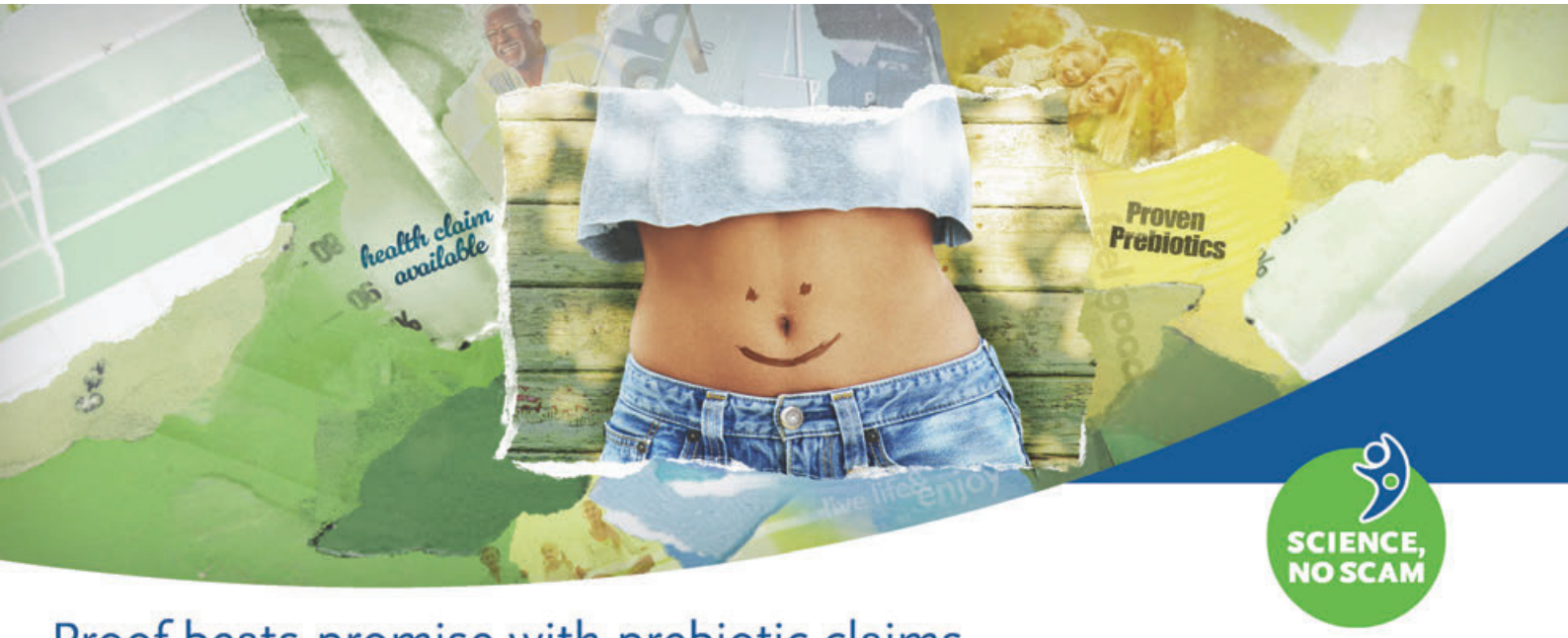
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Founded in 1971 by the German pharmaceutical company MADAUS, EUROMED S.A. is a vertically integrated leading producer of standardised botanical extracts and natural active substances for the pharmaceutical, nutraceutical, food and cosmetic industries to support health and well-being with plant-based solutions.

Annually, a biomass of more than 5000 tonnes is extracted at the company's manufacturing facilities in Mollet del Vallès (Barcelona) and Molina de Segura (Murcia), Spain. The production plant in Murcia further expands EUROMED's capabilities with eco-friendly technologies that use a sophisticated water-based extraction method, the Pure-Hydro Process®.

All extracts comply with worldwide GMP (Good Manufacturing Practice) norms, international pharmacopoeias and regulations. EUROMED has a long history of expertise in research and development, laboratory analyses and extraction technologies and is committed to the highest quality standards in terms of analytics, chemistry and evidence-based therapeutics. This experience is now available to the rapidly expanding global nutraceutical market, which is increasingly seeking pharmaceutical-grade, evidence-based and trusted botanical solutions that support health.



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Nutritionally superior snacks

For consumers, the definition of a healthy snack is no longer one-dimensional, as demands can range from a pre-workout boost to beauty benefits, or an indulgent evening treat. This article looks at how GELITA's ingredient portfolio of specialized gelatins and collagen peptides helps manufacturers meet these shifting expectations with bars and gummies that don't compromise on taste, texture or production efficiency.

Today's consumers expect snacks to deliver indulgence, convenience and nutritional benefits, but what "better-for-you" means depends heavily on the moment: a quick boost before a workout calls for something different than an afternoon pick-me-up or a feel-good treat at the end of the day. Such expectations are reshaping how manufacturers approach familiar snack formats and change recipes to keep pace with consumer demands.

The numbers behind this shift are significant. The global market for functional gummies alone was valued at USD 25.74 billion in 2025 and is projected to reach USD 38.12 billion by the end of the decade[1], while the protein bar market is expected to grow from USD 12.6 billion in 2026 to USD 19 billion by 2033[2]. Growth on this scale rarely comes from a single consumer need and reflects a broader shift in people's overall dietary habits. The traditional model of three meals per day is giving way to more flexible, less formal and on-the-go consumption patterns. For consumers with busy lifestyles, snacking provides both comfort and functionality, which is driving a need for products that match specific moments, whether that's a workout, self-care ritual or simply a craving for something sweet.

Powering peak performance

For consumers who build exercise into their daily routine, a pre- or post-workout snack needs to deliver meaningful protein content without sacrificing flavour or a sense of indulgence. High-protein bars are the product of choice for many athletes and weekend warriors, but they face a familiar formulation hurdle. As protein levels increase, achieving an appealing, soft and chewy texture becomes more challenging. Pushing protein content above 40% often results in a dry, crumbly texture that negatively impacts the sensory experience.

"Active, health-conscious consumers no longer accept a trade-off between performance nutrition and enjoyment," says Natalie Leuwer, Global Category Manager Food at GELITA. "They expect a protein bar to taste and feel as good as any other treat, even at very high protein levels."

GELITA's OPTIBAR® was developed to address this challenge. Rather than acting as a standalone protein source, the collagen peptide ingredient is designed to complement other proteins, such as whey or plant in bar formulations and support a protein content of up to 65 per cent.

"OPTIBAR® interacts with other proteins in the matrix," explains Leuwer. "Its high solubility helps counteract the dryness that typically comes with very high protein loads, so manufacturers don't have to choose between protein content and texture. The combination of whey or plant protein for structure and OPTIBAR® for softness is what keeps a bar enjoyable to eat."

Less sugar, more protein

OPTIBAR® can also be used as a sugar-free binder for cereal bars with an improved nutritional profile. By replacing conventional syrup and sugar-rich binders in bars with the collagen solution, sugar content can be minimised, allowing for appropriate reduced- or low-sugar content label claims. At the same time, its natural protein content means that the inclusion of OPTIBAR® as a binder in cereal bars can give products an additional protein boost.

Its neutral taste makes it ideal for use in both sweet and savoury bars, and its rapid dissolution brings additional processing efficiencies. In traditional recipes, binders such as sugar and syrup must be cooked with water and fat before dry cereal and other ingredients are added. With OPTIBAR®, however, no cooking is required. It is simply warmed with water and fat to 70˚C before the dry ingredients are included and the mass moulded. OPTIBAR® can be used on existing production lines without the need for additional equipment.

As well as reducing the sugar content and increasing the protein content of cereal bars, OPTIBAR® improves bar structure, delivering a pleasantly crunchy texture that lasts throughout the product's shelf life. It works with numerous cereal bar ingredients and can be shaped into various forms in line with consumer demand.

Beauty boost

Protein bars aren't the only snack format wrestling with the trade-off of between nutritional and sensorial performance, as high concentration collagen gummies face a similar challenge. That's because combining tangible benefits for skin health with an appealing taste and texture is not straightforward.

Beauty-from-within has evolved from a niche concept into an established, multibillion-dollar part of the nutricosmetics market, driven by consumers who want visible results delivered from the inside out. Fortified gummies have become one of the preferred snacking formats for this audience as they combine a pleasant sensory experience with routine-friendly, daily dosing.

GELITA's VERISOL® HST was created to address this demand, building on the company's Hybrid Smart Technology which allows a single ingredient to replace both the gelatin and collagen source in a formulation. The difference this makes to dosing is substantial: with a conventional collagen peptide, a fruit gummy can only deliver around 6 per cent of the recommended daily intake (RDI) of collagen, meaning consumers would need to eat 16 gummies a day. With VERISOL® HST, however, that figure rises to 33% of the RDI per gummy, meaning only three daily gummies are necessary to achieve the recommended daily intake of 2.5g.

"With VERISOL® HST, we can bring meaningful levels of collagen peptides into a fortified gummy while maintaining the anticipated and indulgent bite desired by consumers," says Leuwer. "That combination of functionality and sensory quality is the real technical achievement."

VERISOL® contains natural BCP® (Bioactive Collagen Peptides) that have been developed to deliver the highest levels of efficacy in human skin. With their special peptide sequence, they pass the intestinal wall intact, enter the bloodstream and reach the fibroblasts in the dermis. In a completely natural process, they stimulate collagen metabolism and help strengthen the skin's connective tissue. This results in improved elasticity, fewer wrinkles and a more youthful, healthier appearance.

Treats without trade-off

Perhaps the most familiar snacking occasion is also the simplest: a sweet treat eaten purely for enjoyment. But many consumers are struggling with guilt-free consumption, as evidenced by the growth in new product launches with a low, reduced or sugar-free positioning. Protein, on the other hand, is an ingredient that appeals to many people because they know it, trust it and actively seek it out in a range of everyday food and drink products. Therefore, sugar reduction and protein enrichment in sweet treats can help bridge the functional snacks gap, and attract consumers who expect more from their confectionery products.

GELITA's SOLUFORM® was developed to meet exactly this expectation. It allows for sugar reduction of up to 40% in gummies without compromising on texture or taste. At the same time it raises the protein content of a standard gummy from around 9 per cent to as much as 35%, while preserving the familiar gelatin bite consumers associate with the category.

Production advantages

In addition to nutritional and sensory advantages, manufacturers also benefit in terms of production. SOLUFORM® produces less dust during production, transportation and storage. This makes for easier handling and quicker cleaning, resulting in time and cost savings. It also has improved dissolution properties. Owing to adjustable particle size, a higher bulk density and improved wettability profile, it is now easier than ever to create high-concentration solutions. As the particles quickly sink to the bottom of the dissolution vessel, there is reduced clumping and, because of a lower air input requirement, less undesirable foaming. This leads to fewer rejections and a smoother, more controlled and reliable process. Integration into existing production processes is also quick and easy, as no new machinery is required.

Application and formulation support

GELITA's expert teams have vast experience in both the development of scientifically proven ingredients and the creation of successful end products. From exploring ideas and creative concepts to providing technical expertise in product development, production issues and process improvement, the gelatin and collagen manufacturer offers support throughout the entire NPD journey. Its innovative portfolio of clean label, natural products is constantly evolving to deliver future-proof solutions for food and nutrition applications. Its skilled marketing and regulatory teams are on hand for customers, too, to advise on consumer insights, packaging claims and marketing strategies for global product launches.

References:

1 Mordor Intelligence, Functional Gummies Market, cited in: Eastlake, D., "Functional gummies: The snackable supplement revolution," ConfectioneryNews, September 23, 2025

2 Persistence Market Research, Protein Bars Market, press release, February 26, 2026

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Expert explains why healthier convenience foods rely on better taste innovation

Yeast extracts are helping manufacturers create rich, satisfying flavours in low-sodium and plant-based meals.

From ready meals to on-the-go snacks, convenience food has become a regular part of daily life. Globally, more than 3 in 5 consumers (60%) consume convenience or ready-to-eat foods at least once a week, while 1 in 5 choose them more than once a day.*

Against this backdrop, in the UK, 9 in 10 consumers eat ready meals, with more than half of households regularly purchasing pre-prepared convenience food, making the country one of the highest consumers of convenience food in Europe.**

However, with consumers now becoming increasingly health-conscious too, their expectations are changing. Consumers are looking for products that are not only quick and convenient, but also aligned with their health goals, from high-protein and plant-based options to lower-sodium meals.

This creates a new challenge for manufacturers: making healthier convenience foods that still deliver on taste. While nutritional credentials may encourage consumers to buy, taste can determine whether they come back for more, putting pressure on brands to deliver distinctive, indulgent flavours in convenient, shelf-stable meals.

Daria Pashkova, Marketing Manager at Ohly, explains how natural flavour modulation with multi-functional specialty yeast ingredients can help manufacturers create 'better-for-you' convenience foods without compromising on taste.

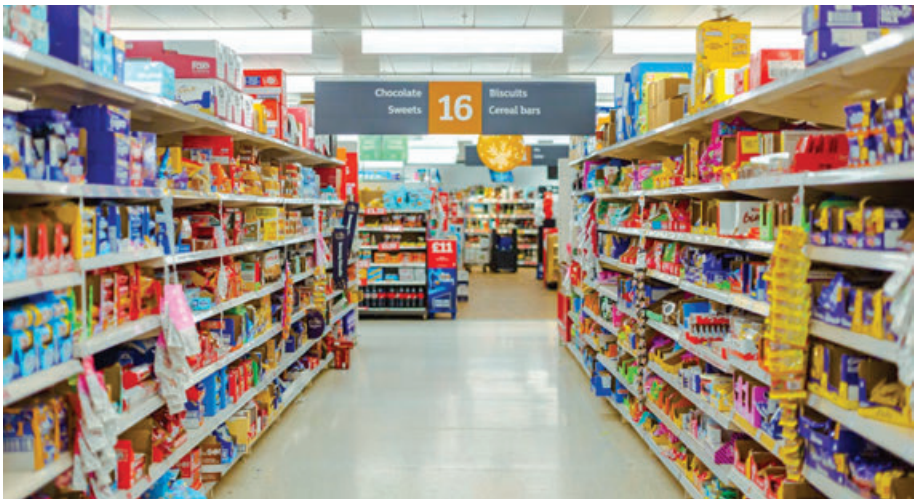
Why taste is becoming the biggest challenge for healthier convenience foods

Consumers are increasingly looking for meals that offer both convenience and nutritional value, with protein and fibre fortification, sodium reduction and plant-based products becoming key focus areas.

However, meeting these nutritional demands can create new challenges around flavour, texture, and overall eating experience. Healthier reformulations can leave products tasting dry, bland, and lacking the depth consumers expect, while plant-based products can introduce off-notes.

The challenge of sodium reduction

Sodium reduction is becoming an increasingly important consideration for food manufacturers as consumers and public health organisations place greater focus on reducing sodium intake. The



World Health Organisation recommends that adults consume less than 2,000mg of sodium per day, equivalent to less than 5g of salt.

However, simply reducing salt can leave foods lacking the flavour consumers expect. Sodium plays an important role in flavour perception and can help enhance the characteristics of other ingredients, making it difficult to adjust the quantity without affecting the overall taste.

For manufacturers, the challenge is finding ways to reduce sodium while maintaining the rich, savoury flavour consumers expect. Yeast-based taste modulation solutions help brands reformulate products without compromising on flavour. As well as masking bitter and metallic off-notes of Potassium chloride, these solutions bring upfront salinity back and balance overall savoury flavour, not only reducing the salt but balancing the sensory profile.

Building better flavour into plant-based foods

The demand for meat-free convenience foods is also pushing manufacturers to develop everyday meals around plant-based proteins instead.

Replacing meat with plant-based proteins can make it hard to create the rich, savoury characteristics that meat would usually deliver in familiar meals. Plant-based proteins also lack the juiciness and umami that help make traditional meals feel satisfying plus they can sometimes introduce bitter or beany off-notes.

Manufacturers therefore need to consider how they can introduce meaty notes to replicate the savoury umami taste that consumers associate with meat dishes while masking any undesirable off-notes and building depth and complexity to drive consumer satisfaction.

Yeast-based ingredients provide a solution to taste and health

Naturally rich in glutamic acid and nucleotides, yeast-based ingredients provide umami and savoury flavours that can help enhance the overall taste profile of a product. They can bring out and balance existing flavours, while also helping to round out flavour combinations.

This can be particularly useful when reducing sodium by:

- Delivering upfront salinity to enhance saltiness perception and balance savoury flavours, helping maintain the overall taste experience whilst reducing the need for salt.
- Bringing out existing natural flavours and modulating tastes to develop richness in better-for-you products.
- Masking off-notes from sodium chloride replacements such as potassium chloride. They are equally valuable in plant-based dishes, for:
- Helping to deliver the savoury character and roasted notes of authentic meaty flavours.
- Giving products that juicy, fatty mouthfeel of meat, which can be so hard to replicate in plant-based meals.
- The natural umami flavour will also serve to mask any off-notes introduced by the plant protein.

Daria Pashkova, Marketing Manager at Ohly, says: "Consumers shouldn't have to choose between food that's good for them and food that

tastes nice. As consumers become more interested in the nutritional content of meals, manufacturers have an opportunity to rethink what better-for-you really means.

Ready meals, in particular, need to offer more than convenience. They need to be something consumers eat for enjoyment or indulgence, with the flavours, depth and complexity they would expect in a meal prepared from scratch.

Ultimately, manufacturers need to bring together nutrition, convenience, and enjoyment. Flavour innovation will be essential to this: making healthier choices just as appealing as the familiar meals consumers already know and love."

** https://www.innovamarketinsights.com/trends/consumer-trends-global-convenience-eating/*

*** https://store.mintel.com/report/uk-ready-meals-market-report*

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Ohly is a world-leading provider of specialty yeast-based ingredients for the food, health, animal health, and bionutrients industries. Ohly develops natural ingredients that deliver flavour for maximum food taste experiences, offering in-depth application knowledge and data to support customers' recipe or process development.

Prinova appoints Brent Laffey, President, North America

Prinova, a wholly owned subsidiary of the NAGASE Group and a leading supplier of ingredients and premixes, has announced the appointment of Brent Laffey as its new President, North America effective January 1, 2027.

Laffey will lead both Prinova's Distribution and Value-Added businesses in North America. The structure is designed to make it easier for customers to access Prinova's extensive ingredient portfolio alongside its technical expertise and value-added capabilities, including product development, nutrient premixes, particle technologies, and contract manufacturing.

"Prinova's performance is strong and we see significant opportunities ahead for our business and our customers," said Masaya Ikemoto, Chairman and CEO, Prinova Group. "Brent brings a rare combination of commercial leadership, deep knowledge of our industry, and first-hand global experience across both our distribution and value-added businesses. Bringing these businesses together under his leadership will help us unlock more of Prinova's capabilities for our customers, build on our momentum, and accelerate our growth."

Laffey has a long history with Prinova dating back to 2007. In 2015, he co-founded Armada Nutrition, now part of Prinova, helping grow the business to $250 million in sales. Since rejoining Prinova in 2025, Laffey has led the North America commercial organization, which has delivered strong results under his leadership and vision.

"I returned to Prinova because I believe in the capabilities of the organization and its people to serve the evolving needs of the food, beverage, and nutrition industry" said Laffey. "We have exceptional expertise across our business, from our ingredient portfolio and global supply chain to product development and manufacturing. As President of our North America business, my focus will be on bringing those strengths together so we can create even greater value for our customers and respond quickly to the opportunities we see in the market."

Laffey's appointment comes at a time of strong business performance and as Prinova continues to invest in areas with significant growth potential. This includes the recent purchase of a 170,000+ square-foot production facility in Bloomingdale, Illinois, which strengthens the company's manufacturing and distribution presence in the Midwest.

The facility will expand production and distribution capacity to support growing customer demand while complementing Prinova's established ingredient distribution and value-added operations across North America.

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What the rise of complete nutrition means for the wider food industry

Camille Augustine Berdugo, Senior Customer Growth Manager at Tate & Lyle

For years, meal replacements occupied a relatively narrow corner of the food and drink industry. They were largely associated with protein shakes, nutrition bars and products designed for specific fitness or weight management goals.

Today, that definition no longer reflects how consumers eat

Complete nutrition now gives manufacturers a broader opportunity, shaped by changing lifestyles, new health priorities and growing demand for tasty food and drink that delivers convenience, satiety and nutritional value in equal measure[1]. Tate & Lyle's proprietary research shows that consumers in the UK are increasingly using these products as snacks, supplements and everyday nutrition solutions rather than simply replacing meals. The commercial opportunity extends far beyond the traditional meal replacement category[2].

More importantly, this shift signals a broader change in consumer expectations that reaches across the wider food industry.

Consumers are moving away from one-size-fits-all products and towards nutrition solutions designed around different occasions, lifestyles and health goals. That has implications well beyond shakes and bars. Snacks, bakery, beverages, dairy and ready meals are increasingly competing for the same consumption occasions, where consumers are looking for products that deliver meaningful nutrition alongside convenience[3].



Convenience is the starting point, not the destination

Busy lifestyles are undoubtedly driving this evolution. Our research in the UK found that 65% of working professionals choose nutrition formats such as meal replacement bars and drinks over traditional meals because time-constrained schedules demand quicker solutions. Among millennials, 63% regularly replace meals with convenient, on the go alternatives that support their nutritional needs[4].

But convenience alone doesn't explain the shift. Consumers are redefining what they expect from a meal, looking for solutions that provide nourishment, convenience and functionality in equal measure.

Our research identified a group we call "Shifting Consumers" – people moving away from traditional meal occasions and embracing more flexible ways to meet their nutritional needs. Within this group, 58% regularly use functional, nutrient dense performance drinks as complete meal replacements[5].

This suggests a more permanent change in behaviour. Consumers increasingly expect products to combine convenience with nutritional relevance, satiety, enjoyable texture and reassurance that they're making a positive choice.

For manufacturers, this changes the brief. A snack may need to satisfy for longer. A beverage may need to offer nutritional benefits alongside refreshment. A ready meal may need to provide functional benefits alongside convenience. Across categories, products are increasingly expected to combine convenience with purpose.

There is no single complete nutrition consumer

Although demand for complete nutrition continues to grow, consumer motivations are becoming more diverse.

Our research identified four distinct consumer groups, each bringing different expectations to the category.

The Jugglers are busy professionals with a lot to balance. They are looking for efficient ways to fuel their lifestyle, with satiety, complete nutrition, convenience and value all playing a role. For them, the opportunity is for food and drink to help a demanding day feel more manageable.

The Longevity Seekers bring a different set of priorities. They are wellness enthusiasts who prioritise quality and experience, with taste, satisfying texture, wellness claims and a sense of no sacrifice among their key needs. For this group, complete nutrition must support longer-term wellbeing while still feeling enjoyable enough to choose again.

The Health Rebalancers focus on specific health outcomes such as gut health and blood glucose management. For this group, credibility matters, with products expected to provide fibre-rich nutrition supported by clear scientific evidence.

The Gainers are fitness enthusiasts looking for functional benefits and specific macronutrients to support gym goals. Their needs often include high protein for post workout support, but they do not want to compromise on texture and convenient formats. For them, complete nutrition has to work hard functionally but still fit easily into their every-

day routine and support training and recovery.

These differences matter because consumers are increasingly comparing products across categories rather than within them[6]. The right solution must fit both the individual and the occasion.

For manufacturers, the implication is clear: opportunities increasingly extend beyond dedicated meal replacement products. As consumer needs become more diverse, complete nutrition can play a role across a broader range of food and beverage formats and occasions.

From consumer insight to product innovation

Understanding changing consumer behaviour is only valuable if those insights shape product development. That's the real opportunity emerging from complete nutrition.

Products that once sat within a specialist category are becoming part of everyday eating habits, influencing how consumers think about snacks, beverages, bakery products, dairy and ready meals. As complete nutrition becomes more mainstream, manufacturers across food and drink categories face growing pressure to demonstrate why their products deserve a place in consumers' routines.

Meeting these expectations requires more than recognising trends. It demands formulation strategies capable of delivering convenience, nutritional relevance, satiety and sensory appeal within the same product.

At Tate & Lyle, we see this as both a consumer insight opportunity and a formulation challenge. By combining proprietary consumer research with expertise in ingredient functionality, regulatory understanding, nutrition science and product development, we help manufacturers translate evolving consumer expectations into products that perform in the real world.

As complete nutrition continues to reshape how people eat, the manufacturers that succeed will be those that can bridge the gap between changing consumer needs and successful formulation, creating products that deliver convenience, nutrition and enjoyment without compromise.

For further information here.

References:
1 Tate & Lyle proprietary research, Toluna online survey, UK 2025/2026
2 Tate & Lyle proprietary research, Toluna online survey, UK 2025/2026
3 Tate & Lyle proprietary research, Toluna online survey, UK 2025/2026
4 Tate & Lyle proprietary research, Toluna online survey, UK 2025/2026
6 Tate & Lyle proprietary research, Toluna- online survey, UK 2025/2026

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IFF identifies ten consumer moments reshaping food and beverage innovation in the GLP-1 era

IFF — a global leader in flavors, fragrances and health and biosciences, has launched its latest report, "GLP-1 Consumer Moments of Opportunity." The report uncovers ten emerging consumer moments that reflect the changing needs of consumers using GLP-1 medications.

"What GLP-1 users need from food and beverage products depends on the moment, and those needs can change many times throughout the day," said Yuvraj Arora, president of IFF Taste. "The most successful innovations will be designed around the occasions that matter most to consumers, delivering the right balance of nutrition, enjoyment and functionality for each one. Understanding these moments can unlock entirely new avenues for innovation."

While much of the industry conversation has focused on reduced food intake, IFF's research points to a broader shift in consumer behavior. Consumers are re-evaluating their food and beverage choices throughout the day to meet different needs. These moments range from protein-focused morning routines and post-workout recovery to planned indulgence, hydration, social occasions and end-of-day comfort.

IFF's report provides a formulation roadmap to help manufacturers design products that appeal to the rapidly growing number of GLP-1 users, highlighting ten consumer moments:

- **Protein-First Wake-Up**: Consumers seek an easy, appealing way to start the day and make progress toward their nutrition goals.
- **Midday Bridge**: Late morning through to early afternoon, consumers look for satisfying nourishment between meals without feeling overly full.
- **Post-Dose Recovery Window**: Many GLP-1 users report discomfort or heightened sensory sensitivity around dosing. They may prefer mild flavors and easy-to-consume formats.
- **On-the-Go Fuel Stop**: Busy schedules create demand for convenient, portable options with flexible portions.
- **End-of-Day Emotional Reset**: After a stressful day of work or study, GLP-1 users often seek comfort through familiar flavors and appealing textures.
- **Planned Indulgence**: This moment centers on a deliberate choice to enjoy food. Consumers intentionally choose small, enjoyable treats that deliver on flavor and satisfaction.
- **Nutritional Insurance Check**: At the end of the day, some consumers assess whether their intake has met their nutritional goals.
- **Post-Workout Reward**: After physical activity, consumers may want a reward. This moment offers opportunities to combine a refreshing sensory experience with relevant nutrition.
- **Social Table Moment**: When consumers want to enjoy food in a social setting, flexible servings, shareable formats and culturally familiar flavors can make their participation easier.
- **Compliance Snack**: Consumers seek confidence that their choices align with their nutrition and wellness objectives.

The report also identifies Hydration Plus, bringing the Consumer Moments approach into beverage design. This is a growing area of opportunity for beverage developers. Rather than viewing hydration as a single necessity, the research identifies five hydration need states: Replenish, Maintain, Revitalize, Perform and Connect, providing a framework for designing beverages that better align with consumers' evolving routines and expectations.


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"One of the clearest findings is that nutrition isn't the only thing consumers are thinking about," said Mark Haupt, chief medical officer and vice president of Health Sciences R&D for IFF Health & Biosciences. "What remains constant is the desire for foods and beverages that help them meet their health goals while still enjoying the experience."

IFF's report, "GLP-1 Consumer Moments of Opportunity" follows its breakthrough 2025 GLP-1 Consumer Opportunity Outlook. To develop this new report, IFF partnered with InsightsNow, an AI-powered market research service, combining proprietary consumer research with GLP-1 users, analysis on snacking behaviors, review of more than 25,000 social media posts related to GLP-1 use and snacking, and secondary industry data. The project also leveraged InsightsNow's trademarked AI-powered behavioral intelligence platform, Claira™[1], to uncover the relationships between consumer context, internal needs and external motivators.

Reference:
1 Claira™ is a trademark of InsightsNow Inc.

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Gum arabic : The natural ingredient the American BFY market has been waiting for

By Isabelle Jaouen, R&D Director, Alland & Robert

Something structural is happening in American food and beverage. It is not a trend, it is a shift. According to Mintel's 2025 U.S. Carbonated Soft Drinks report, 41% of American consumers paid closer attention to their diet in 2024. In the snack bar segment, 87% say they are willing to pay a premium for at least one meaningful health benefit. These numbers are not projections. They describe a market that has already changed.

At Alland & Robert, we have worked with gum arabic for over a century. We have watched this ingredient be taken for granted, used quietly in formulations without ever being named, promoted, or understood for what it truly is. That era is ending. The market is now asking exactly the questions gum arabic was built to answer.



The BFY Revolution in Beverages: A Formulator's Opportunity

The decline of classic carbonated soft drinks is real and accelerating. Consumers are not simply drinking less soda, they are actively seeking alternatives that justify the purchase beyond taste. The acquisitions of Poppi by PepsiCo and the revival of Slice by Suja Life are not coincidences; they are strategic signals from the industry's biggest players that the "better-for-you" (BFY) segment is the future of the category.

What does a BFY beverage need to deliver? Fewer added sugars, yes, but increasingly, something positive: fiber, digestive support, functional benefits backed by recognizable, natural ingredients. This is where gum arabic becomes a genuine competitive asset.

Gum arabic is a soluble dietary fiber that can be incorporated into beverages at meaningful levels without altering taste, mouthfeel, or clarity. It has GRAS (Generally Recognized As Safe) status with the FDA, a short and recognizable INCI name, and a documented prebiotic effect on the gut microbiome. In a market where brands like Poppi have built their entire positioning on gut health, gum arabic offers formulators a scientifically sound, label-friendly path to genuine fiber enrichment, without the formulation compromises that come with inulin or chicory root fiber.

Nutrition and Performance Bars: Beyond Protein, Toward Naturalness

The U.S. snack bar market tells a parallel story. Mintel's 2026 report makes clear that protein has become table stakes. Brands like Barebells (+304% growth) and David Protein have proven that high-protein positioning works. But the next competitive frontier is already emerging: natural ingredients, clean labels, and functional differentiation beyond macronutrients.

Generation Z, now a dominant force in this category, is nutritionally sophisticated. They read labels. They use apps like Yuka. They know the difference between a fiber source derived from a tree resin harvested in the Sahel and a synthetic binding agent. This distinction matters — and brands that can tell a credible, traceable ingredient story will earn both loyalty and a price premium.

For bar manufacturers, gum arabic brings multiple technical benefits: it acts as a natural binder that improves texture and cohesion, it contributes soluble fiber to the nutritional panel, and it does so with a neutral flavor profile that does not interfere with the taste architecture of the product. It is also compatible with plant-based protein systems, a particularly relevant advantage as the market shifts toward vegetable protein sources.

The Clean Label Imperative: Gum Arabic as a Strategic Differentiator

Across beverages and bars, the underlying consumer demand is the same: "Tell me what is in this product, and make me feel good about it." Clean label is no longer a niche positioning; it is a market expectation.

Gum arabic passes this test in ways that many functional ingredients do not. It is derived from the natural exudate of Acacia trees, primarily sourced from the African Sahel, a supply chain that carries genuine sustainability credentials. It does not trigger consumer algorithm penalties and it can be described simply and honestly on packaging: "acacia fiber."

In a market where the margin between a brand that wins and one that stagnates is increasingly decided at the ingredient level, this matters enormously.

A Call to Formulators and Innovation Teams

The American market is not waiting. Every quarter, new brands are launched, new formulations are validated, and new positioning wins shelf space. The window to lead with a genuinely differentiated, science-backed, natural fiber ingredient is open, but it will not remain open indefinitely.

At Alland & Robert, we invite R&D and innovation teams in the BFY beverage and nutrition bar space to engage with us on the formulation possibilities that gum arabic offers. We bring not only the ingredient, but over 130 years of technical expertise, rigorous quality standards, and a supply chain built for the transparency that today's market demands.

The ingredient has always been there. The market has finally caught up.

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https:www.allandetrobert.com

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Blue breakthrough: Natural shades with spirulina

Christina Niehoff, Product Manager at GNT Group, explains how natural spirulina can be stabilized to replace Brilliant Blue in juice drinks and soft drinks

Blue is an important color in the modern beverage market. It is used both alone and in blends, delivering a broad spectrum of shades including blues, greens, and purples.

However, even in Europe – where natural colors have been the industry standard for some time – most beverage manufacturers still rely on synthetic dyes for blues.

Innova data shows that 58.6% of blue coloring ingredients in European soft drink launches between 2020 and 2025 were artificial, with Brilliant Blue FCF by far the most dominant.[1]

Brilliant Blue is used to achieve stable shades including bright cyan and electric blue, but it is a petroleum-based dye at a time when consumer demand for naturally sourced ingredients continues to grow.

Spirulina-based colors – natural blues sourced from a popular superfood – offer an alternative that can be used to achieve a close visual match to Brilliant Blue.

They have been used effectively in chilled smoothie and juice drink applications for some time, but it was not technically feasible to use spirulina in shelf-stable, acidified beverages – until now.

GNT's patented spirulina technology has now made it possible for manufacturers to use spirulina to achieve blue shades in a vast array of beverage applications, including shelf-stable fruit juice drinks and other ready-to-drink flavored beverages and syrups.

Spirulina: Benefits and limitations

In 1994, we began using spirulina – which contains naturally occurring pigments called phycocyanins – to create the first blue Coloring Foods in Europe.

Our blue shades are made from a spirulina concentrate that is minimally processed using water. The spirulina is filtered and then concentrated through evaporation to produce a high-quality product that has not been chemically purified and is free from chemical solvents.

Our spirulina colors are approved for use in beverages in much of the world, including the EU and UK, where they can be listed simply as "spirulina concentrate."

However, spirulina has historically faced huge challenges when used in acidified and pasteurized beverages.

The colors are composed of carbohydrates, phytonutrients, and C-phycocyanin and allophycocyanin, which are the phycobiliproteins primarily responsible for the vibrant blue shade.

Similar to other proteins, phycobiliproteins are subject to denaturing due to temperature increases, changes in pH levels, and light exposure.

Fortunately, we have a deep understanding of the chemistry and physical properties of phycocyanins.

New possibilities: A technological breakthrough

GNT has now developed a patented formulation technology that allows spirulina to deliver a bright, stable blue shade in acidified beverages including:

- Juice drinks and smoothies
- Syrups
- Carbonated soft drinks
- Sports drinks
- Energy drinks
- Enhanced waters
- Alcoholic beverages below 20% ABV

Through years of research and development,

our technical team at GNT validated beverage model formulas under various conditions to understand the key critical parameters, including those related to ingredient formulation, dosage, temperature processing, method of color addition, and the impact of additives.

Through controlled complexation with λ-carrageenan, the technology enables the spirulina to withstand acidification, pasteurization, and extended storage.

Already used in commercial products, the solution achieves approximately 93% color retention after pasteurization compared with around 70% for conventional systems, eliminates precipitation in critical pH ranges, and significantly improves shelf-life stability.

The EXBERRY® spirulina solution is available in several different forms and certifications to meet the product developer's clean-label needs. This includes liquid and powder formats, organic, halal, and kosher certifications.

Unleash your products' potential

EXBERRY® spirulina colors can provide a range of naturally vibrant blues in food and drink applications.

In addition, we create our green shades by mixing spirulina with plant-based yellow raw materials to deliver a spectrum from turquoise to lime green. We can also achieve lavender and purple hues by mixing spirulina with red and pink raw materials.

Blues, greens, and violets are the ideal way to deliver eye-catching experiences that are ready to be shared on social media. Tapping into the adventurous spirit of the new generation of consumers, these shades can open up new flavor opportunities and entice the consumer's curiosity.

While spirulina is not a plug-and-play solution, GNT provides comprehensive technical support to manufacturers at all stages of product development. We will work closely with you to get the best performance out of EXBERRY® based on your recipe, processing and requirements. We can help you with concept innovation, color selection and matching, stability testing, upscaling, regulatory support, and quality documentation.



At a time when consumers want natural products, EXBERRY® plant-based colors are a solution they can truly trust. Our vibrant concentrates allow you to create exciting, eye-catching beverage experiences while matching up to modern expectations on clean labels and transparency.

Reference:

1 Innova New Product Database, January 2020-December 2025, soft beverages, Europe

EXBERRY®

www.exberry.com

Sormac opens new fresh experience centre

Sormac has recently opened its new Fresh Experience Centre at its headquarters in Venlo, the Netherlands. At this modern demonstration and knowledge centre, processors and industry partners can discover Sormac's fresh produce processing equipment and test it under realistic operating conditions.

The 700 m² facility combines a production hall with reception and hospitality areas, conference facilities and meeting rooms. It serves as a hub for machine demonstrations, product testing, training and knowledge exchange.

Fresh produce processors can test their own products to assess cutting quality, peeling results, product handling, capacity and yield before selecting a solution. Sormac's specialists guide these tests and help optimise machine settings. Visitors can also see how individual machines work together in a complete processing line and how each stage influences product quality, efficiency and the final result.

A platform for knowledge exchange

In addition to demonstrations and product testing, the centre will host training sessions, seminars, open days, dealer meetings and other events. Practical and theoretical training will be available for production managers, machine operators and technical teams, covering new developments, trends and applications in fresh produce processing.

Roy Lemmen, Commercial Director at Sormac B.V commented: "The centre is more than an exhibition space. It is a place where Sormac, processors and partners can work together to identify the most suitable processing solutions for fresh fruit and vegetables,"

Supporting customers throughout the process

The Fresh Experience Center complements Sormac's existing microbiological laboratory, where critical processing steps are assessed for hygienic design, food safety, product quality and process reliability. Together, the two facilities support customers from research and product testing through to machine demonstrations and the evaluation of complete processing solutions, helping them make informed decisions and optimise their operations.

Its location is another advantage. "Our proximity to the German border and the Ruhr region makes us easily accessible for German customers. Düsseldorf (DUS) and Eindhoven (EIN) airports are also both approximately 40 minutes away, making travel convenient for visitors from around the world," Lemmen concludes.

For further information on the Fresh Experience Centre, please visit **www.sormac.com** or contact the Sormac team at sales@sormac.nl

Why rigorous accreditation is the new baseline for ingredient trust and brand resilience

Atsushi Sugimoto, Assistant Manager, Mitsubishi Gas Chemical

Over the past few years, consumers have begun shifting from reactive to proactive health and anti-aging practices, and nutraceutical manufacturers are taking notice. In fact, according to recent data, the global anti-aging supplement market alone is projected to grow from USD 5.1 billion in 2026 to USD 9.0 billion by 2033, signaling a clear response to the rising consumer attention being paid to health and wellness, particularly anti-aging. However, growing consumer skepticism and tightening global regulations mean that unverified ingredients and product claims that exaggerate or falsely advertise health benefits put brands at risk of damaged reputation and heightened financial risk. Moving forward, third-party certifications, rigorous clinical verification, and regulatory approvals are protections for brand loyalty and supply chain resilience.



The High Risk of Unvetted Ingredients vs. Strategic Certification

When supplement manufacturers compromise on raw material selection, the consequences extend well beyond a failed quality check. Incorporating unvetted or generic ingredients exposes brands to severe operations risk, including supply chain fragility, batch inconsistency, ingredient contamination, and critical regulatory non-compliance. In an increasingly transparent marketplace, a single quality failure can result in product recalls, costly legal exposure, and a destruction of consumer loyalty.

To mitigate these issues, industry leaders are shifting away from viewing quality assurance as a burden but rather treating accreditations as an essential risk-management framework. This is particularly crucial for fermentation-derived ingredients, where controlled microbial environments offer substantial purity advantages but inherently require strict operational consistency to eliminate biological variability.

Here, benchmark certifications like FSSC 22000 (Food Safety System Certification) play a vital role. Grounded in ISO 22000 standards and recognized by the Global Food Safety Initiative (GFSI), FSSC 22000 mandates comprehensive hazard analyses, preventive controls, and complete end-to-end supply chain traceability, from raw fermentation inputs to finished handling. This structured guidance ensures that as manufacturers introduce advanced technologies, such as AI-driven fermentation monitoring, process optimizations remain fully validated, auditable, and resilient against global supply chain disruptions.

Inclusivity and Athletic Assurance

Beyond traditional quality assurance and safety management, modern supplement brands must address a broader definition of consumer trust, which goes beyond typical satisfaction to include cultural inclusivity, ethical transparency, and stringent contamination testing. As the global nutritional landscape becomes increasingly diverse, third-party certifications play a pivotal role in removing market barriers.

Halal certification is far more than a religious mandate – it represents a rigorous, secondary layer of quality discipline. For fermentation-based ingredients, achieving Halal compliance requires a comprehensive audit of raw material origins, microbial culture substrates, downstream processing aids, and facility sanitation protocols to eliminate cross-contamination risks. This level of operational review reinforces quality across the entire manufacturing footprint. Economically, it enables brand owners to tap into expanding multicultural markets across Europe and the UK, where the UK Halal market alone was valued at USD 89.45 billion in 2024 and is projected to reach USD 149.61 billion by 2030 according to a recent report. In these diverse regions, Halal certification is increasingly recognized by both Muslim and non-Muslim procurement managers as a clean-label symbol of ethical sourcing and exceptional processing hygiene.

In parallel, active consumers and professional athletes represent one of the most demanding groups for ingredient integrity, where the presence of unlisted contaminants, heavy metals, or undeclared substances can destroy a brand's market standing and reputation immediately. Achieving Informed Ingredient certification under the global Informed Choice program addresses this by guaranteeing that every batch of raw material is independently screened for a wide range of substances prohibited by the World Anti-Doping Agency (WADA). When applied to active-aging and cellular health compounds, this dual assurance of Halal inclusivity and Informed Ingredient purity provides formulators with a compelling brand reputation. Ultimately, these accreditations function as proactive proof of manufacturing integrity, reassuring athletes, formulators, and everyday wellness consumers that an ingredient is pure, ethically produced, and safe for long-term daily use.

Regulatory Gold Standards & Longevity Science

While voluntary accreditations and athletic purity certifications establish operational excellence, navigating the regulatory standards of consumer markets forms the ultimate standard of

ingredient quality and legal security. Within the EU, regulatory clearance acts as a critical filter that distinguishes thoroughly vetted compounds from risky, generic alternatives.

In Europe, pyrroloquinoline quinone (PQQ) has been subject to Novel Food Ingredients assessment requiring comprehensive safety evaluation and manufacturing transparency. Naturally occurring in foods such as kiwifruit, spinach, green tea, and even human breast milk, PQQ is a vitamin-like nutrient known for its robust antioxidant properties. To date, MGCPQQ®, which is naturally derived via proprietary fermentation by Mitsubishi Gas Chemical (MGC) in Japan, remains the only PQQ ingredient to have been successfully evaluated for safety and quality by the European Food Safety Authority (EFSA) and included on the EU's approved Novel Foods list.

Crucially, MGCPQQ is the only PQQ lawfully permitted to be sold across the European Union, EEA, UK and Switzerland where Novel Food applies. Brands utilizing unauthorized, generic PQQ alternatives incur severe compliance risks, including immediate product seizures, commercial bans, and total loss of distributor trust. EFSA's evaluations ensure that any supplement entering the market meets safety criteria, protecting consumers from potentially harmful or misleading products. For European brand owners, formulating with an EFSA-evaluated Novel Food drastically mitigates regulatory exposure, streamlines technical documentation, and accelerates time-to-market across all EU member states.

This regulatory clearance is backed by more than 40 years of dedicated research and more than 1,000 studies, yielding a bioavailable disodium salt compound with a purity exceeding 99%. While PQQ has long been recognized for its role in supporting mitochondrial biogenesis, cognitive function, energy regulation as well as Nerve Growth Factor (NGF) production, groundbreaking research published in May 2026 in the peer-reviewed journal *Food & Function* (Royal Society of Chemistry) has expanded its relevance directly into healthspan science.

Utilizing an established mammalian model of accelerated aging (SAMP8), the landmark 2026 study evaluated the impact of dietary MGCPQQ on physical decline and survival dynamics for mice.



The key scientific findings revealed that MGCPQQ:

- **Mitigates Midlife Mortality Risks**: Lifelong dietary intake prolonged survival days at the 75th percentile by 73.2% compared to untreated controls, while midlife intervention significantly diminished early-to-midlife mortality risks.
- **Reverses Sarcopenia & Restores Physical Function**: Introducing PQQ into the diets of middle-aged models whose functional physical baselines had already deteriorated by 30% successfully restored physical endurance and muscle performance back to youthful levels within just six weeks.
- **Protects Neuromuscular Coordination**: Detailed western blot and anatomical evaluations indicated that physical endurance gains were driven by preserved motor signaling networks and central communication hubs bridging the brain and peripheral skeletal muscles, rather than simple muscle mass enlargement.
- **Downregulates Inflammaging**: PQQ directly downregulates the expression levels of aggressive pro-inflammatory genes, specifically suppressing systemic inflammaging markers such as interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF-α).

By directly linking mitochondrial efficiency to neuromuscular preservation, systemic anti-inflammatory protection, and sustained physical activity, MGCPQQ can offer formulators a multi-functional foundation for active healthy aging formulations.



Building a Futureproofed Supplement Brand

As global supply chains become more interconnected and consumer expectations more stringent, the bar for nutraceutical brand success continues to rise. Business success and resilience depend on the integration of scientific control, internationally recognized quality frameworks, and inclusive market standards that support trust globally. MGCPQQ demonstrates how investment in quality governance, including by combining EFSA Novel Food authorization, FSSC 22000 supply chain safety, Halal cultural inclusivity, Informed Ingredient athletic purity, and peer-reviewed longevity science, creates a futureproofed benchmark for the nutraceutical industry.

For supplement manufacturers and brand owners in the EU, navigating the expanding healthy aging market requires choosing raw material partners who view quality assurance as a way to prioritize trust, reliability and innovation. By formulating exclusively with thoroughly vetted, well-researched, multi-certified ingredients that are proven to be pure and safe, brands protect their market reputation, ensure long-term supply chain resilience, and deliver supplements that are trustworthy and effective.

To learn more about this safe and powerful ingredient and its many health benefits, please visit **https://www.mgcpqq.eu**

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Five forces reshaping the future of food in Europe: From AI-driven innovation to the rise of sensory indulgence

The European food industry is undergoing rapid transformation. Consumers increasingly expect healthier products, transparency, superior sensory experiences, and tailored solutions, while remaining highly sensitive to price. At the same time, manufacturers face rising cost pressures as they work to reformulate, improve sustainability, adapt to new technologies and deliver greater value without compromising product quality or performance.

Based on market intelligence, customer insights, consumer trends and industry expertise, Corbion has identified five key developments shaping innovation across food categories. While challenges vary by sector, common themes include trust, clean-label expectations, sensory differentiation, digitalization and product performance.

This annual analysis forms part of Corbion's ongoing effort to keep its innovation and business priorities aligned with changing market realities. By combining customer insight with category expertise, Corbion seeks to identify not only where food trends are heading, but also what manufacturers will need to succeed in an increasingly complex regulatory, technical and evolving consumer expectations.


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Artificial intelligence is becoming a new innovation partner

Artificial intelligence is moving well beyond operational efficiency and is now beginning to influence product design, consumer understanding and purchasing choices, flavor development, quality control, and personalization. Almost 30% of European consumers say they would be likely to purchase food or beverages based on recommendations from artificial intelligence[1]. Across the food value chain, companies are using increasingly sophisticated data analysis tools to gain deeper insights into consumer preferences, anticipate purchasing behaviors, and accelerate innovation cycles.

At the same time, the growing use of AI raises important questions around transparency, trust, and how consumers interact with food brands in an increasingly digital environment. As AI becomes more integrated into food innovation and retail experiences, companies will need to balance technological advancement with consumer confidence and authenticity.

"We believe AI will increasingly help food companies move from reacting to consumer needs to anticipating them. The real opportunity lies not only in greater efficiency, but in creating smarter innovation processes that connect consumer insights, product development and purchasing behavior more closely than ever before." Soledad Santarossa – Sr. Manager Global Insights at Corbion.


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Confectionery is experiencing a shift toward "meaningful indulgence"

Indulgence remains a powerful driver of food purchasing decisions, but the way consumers define indulgence is changing. Rather than seeking simple treats, many consumers are looking for unique experiences that deliver emotional reward through flavor, texture, and sensory enjoyment while still aligning with broader expectations around wellbeing and ingredient quality.

One of the most interesting developments is the growing importance of texture and multisensory experiences. Corbion expects texture combinations, layered flavor delivery and contrasting sensory experiences to become increasingly important differentiators in confectionery development during 2026 and 2027. Sour flavor profiles continue to attract attention, while clean-label expectations are reshaping how manufacturers approach product development and formulation.

The result is a growing opportunity for brands that can combine emotional satisfaction and sensory impact with recognizable ingredients and trusted product credentials.

"Consumers are no longer looking for indulgence alone. They are looking for an experience. Texture, flavor layering and sensory contrasts are becoming just as important as taste itself. Brands that can combine those experiences with recognizable ingredients and clean labels will


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be best positioned to stand out in a crowded confectionery market." Jasper Kappelle – Confectionery Manager EMEA, at Corbion.

Meat manufacturers are balancing clean labels with technical realities

The meat sector illustrates one of the industry's most complex innovation challenges. Consumer expectations continue to intensify. Almost half of consumers globally report preferring products with as few ingredients as possible, while growing scrutiny of processing methods, ingredient transparency and product provenance is pushing manufacturers to simplify formulations without sacrificing performance.

This tension is driving significant investment in alternative preservation strategies and reformulation efforts. Across Europe, manufacturers are exploring new ways to address demand for cleaner labels while maintaining the functionality that traditional preservation systems have historically provided.

The challenge is no longer whether clean-label solutions are desirable; increasingly, they are becoming an expectation. The real question is how manufacturers can meet these expectations without compromising product quality, safety, or consumer experience.

"The challenge facing meat manufacturers today is not whether consumers want cleaner labels. The challenge is how to deliver those labels while maintaining the safety, shelf life and eating quality consumers expect. Success will depend on finding solutions that balance consumer expectations with technical and operational realities." – Stephan Dobbelstein, Senior Director Business Development at Corbion.

The next chapter for alternative proteins: scaling maturity

The next chapter of alternative proteins is likely to look very different from the first. Although the alternative protein category has faced commercial and formulation challenges, consumer expectations of taste, texture, nutrition and value have continued to rise.

The pressure to improve product quality comes at a time when clean-label expectations are rising across protein categories. According to GlobalData consumer research, 46% of consumers prefer products with as few ingredients as possible, while concerns about processing and transparency are increasingly influencing purchasing decisions.

As a result, manufacturers are facing pressure to simplify formulations, improve sensory appeal to create new consumer experiences, and communicate product benefits more clearly. At the same time, hybrid approaches that combine plant and animal proteins are emerging as a promising pathway for consumers seeking a balance between nutrition, familiarity, affordability and sustainability.

The sector is moving beyond novelty and entering a period where product quality and consumer trust will become decisive competitive factors.

"The alternative protein market is entering a more mature phase. Consumers are no longer willing to compromise on taste, texture or simplicity of ingredients. Going forward, the winners will be those companies that can deliver products that perform as well as traditional options while providing clear nutritional and sustainability benefits." – Stephan Dobbelstein, Senior Director Business Development at Corbion.

New food safety requirements are reshaping the ready-to-eat meat industry

As demand for ready-to-eat meat products continues to grow, manufacturers are preparing for a major shift in food safety requirements across Europe. The new European regulations which came into force on July 1st are increasing expectations around Listeria control and placing greater emphasis on product safety throughout the entire shelf life of ready-to-eat foods, rather than compliance at a single point in time.

These changes are prompting manufacturers to rethink formulations, preservation strategies, packaging, and shelf-life management while continuing to meet consumer expectations for convenience, freshness, and taste. The discussion is extending beyond compliance to broader questions around food waste, supply chain resilience, and the future of food preservation.

The tightening regulatory environment is also driving increased investment in verification and testing. The global food safety testing market is projected to reach $44.1 billion by 2033, reflecting growing industry focus on validation, monitoring and compliance throughout the food production chain.

As the industry adapts, manufacturers are increasingly looking for solutions that combine regulatory confidence, food safety expertise, and product performance under real-world conditions.

"The new Listeria requirements are encouraging manufacturers to take a broader view of food safety. The conversation is expanding beyond compliance to include shelf life, food waste, operational efficiency and product performance. Companies that proactively adapt their preservation strategies will be better positioned to navigate both regulatory and commercial challenges." – Saffiera Karleen, Business Development Manager at Corbion.

What food producers need to do next

"Whether discussing artificial intelligence, confectionery, meat products, alternative proteins, or culinary applications, a common thread connects all categories. Consumers increasingly expect products that are transparent, understandable, and aligned with their personal values", said Linda Tomaselli, Senior Manager Marketing at Corbion.

Linda continued "At the same time, they continue to demand enjoyable eating experiences, convenience, affordability, and strong product safety. The companies that successfully balance these competing priorities will shape the future of food innovation in Europe.

As the industry evolves, the ability to combine scientific expertise, consumer understanding, and formulation capabilities will become increasingly important in helping manufacturers navigate a more complex and demanding marketplace."

Reference:
1. GlobalData 2025 Q4 Consumer Survey Results _ Europe


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https://www.corbion.com

From laboratory result to production decision: Rethinking residual lactose testing

Demand for low-lactose and lactose-free dairy continues to create opportunities across milk, yoghurt, cream, cheese, ice cream, powders and other value-added products. Yet as manufacturers expand these portfolios, they face a deceptively difficult question: how can they verify that each batch meets its intended lactose claim quickly enough to support production?

The challenge is not simply obtaining a number, manufacturers need a result that is sufficiently sensitive for the relevant claim, reliable within a complex dairy formulation and available while the information can still influence a release decision.

This is prompting the industry to reconsider where lactose testing belongs. Rather than treating measurement solely as a final quality-control exercise, manufacturers can bring testing closer to production and use batch-specific results to guide operations in real time.

Low Residual Lactose Leaves Little Room for Uncertainty

Measuring residual lactose is particularly challenging because concentrations may need to be verified at approximately 0.01% or lower, leaving little room for analytical uncertainty. Additionally, the product itself can make that measurement more difficult. Lactase treatment breaks lactose down into glucose and galactose, which may interfere with measurement methods that are not sufficiently specific. Additionally, high protein levels, added flavours, or fruit preparations can also introduce further analytical complications.

The range of dairy products adds another layer, a measurement that performs effectively in liquid milk will not necessarily behave in the same way in a semi-solid, solid or powdered product. Manufacturers therefore need to consider the intended claim threshold, formulation and production environment when selecting a testing method. This becomes especially important for businesses operating across multiple sites or those with varied product portfolios. Reliable testing must go beyond controlled validation conditions and ensure reproducible results across products, operators and facilities.

When Results Arrive Too Late

Reference laboratory methods can provide a high degree of analytical confidence, but they may also require highly specialized equipment, trained personnel or extensive sample preparation. When samples have to be sent to an external laboratory, finished batches may remain on hold for extended periods of time while manufacturers await confirmation.

During that period, inventory occupies valuable space and production teams lack the information needed to respond quickly to a potential deviation. The difficulty may be greater during night shifts or weekends, when laboratory access and specialist personnel are limited. As a result, some manufacturers may rely on historical or "typical" results instead of verifying every batch. Although this can keep operations moving, it provides less visibility into batch-to-batch variation and weakens traceability.



Elisabeth Halbmayr-Jech-Product Manager bei Kerry

A delayed result may accurately document what happened, but it cannot always help teams determine what should happen next. For testing to support production actively, the answer must arrive earlier in the process. The central challenge is balancing speed with analytical confidence: manufacturers need results quickly enough to guide decisions without compromising the precision required to support the product's claim.

Bringing Measurement Closer to Production

Rapid, on-site testing offers a different model - straightforward sample preparation, portable equipment and limited training requirements allow quality or production teams to assess residual lactose without depending on a specialist laboratory.

This builds testing into part of the manufacturing process. If an in-house result confirms that the batch meets the intended concentration, the product can move towards release sooner. If a potential issue is identified, teams can investigate while the batch is still immediately accessible.

Speed, however, cannot come at the expense of confidence. A rapid method must demonstrate the sensitivity, specificity and reproducibility required for the products and concentration ranges in which it will be used.

LactoSens® helps address this balance. The direct biochip assay specifically measures residual lactose in low-lactose and lactose-free dairy products, delivering results in approximately three minutes. Because the assay is specific to lactose, it helps avoid interference from other sugars, including the glucose and galactose produced during lactase treatment. Its expanded application range supports testing across liquid, semi-solid, solid and powdered products, including formulations containing flavours and fruit preparations.

LactoSens® is available in three versions for different lactase systems, residual lactose ranges and applications:

- **LactoSens® 0.02%**: For products made with Ha-Lactase™, covering a concentration range of 0.02–1%. It is particularly suited to low-lactose applications in white dairy products
- **LactoSens®R**: For all dairy products made with Ha-Lactase™, covering a concentration range of 0.008–0.2%. It is designed to support lactose-free batch release.
- **LactoSens®R for NOLA® Fit**: Covers the same range (0.008–0.2%) for all dairy products made with NOLA® Fit lactase

The different versions reflect an important principle: no testing method should be selected in isolation from the claim, matrix or manufacturing process. The most suitable approach depends on what the manufacturer needs to verify and where the test will be performed.

Confidence Must Be Validated

Before adopting a rapid method, manufacturers should examine whether it measures lactose at the required threshold, performs across relevant dairy matrices and produces reproducible results between operators and sites. Practicality matters, but so does independent evidence.

LactoSens® has been validated against HPAEC-PAD, a recognised reference technique for low-level lactose quantification. It also holds NordVal certification following comparison with IC-PAD chromatography through independent ISO 17025-accredited laboratories. In 2022, the method received AOAC Official Method of Analysis Final Action status following scientific review and collaborative validation.

Making Testing Part of the Decision

The wider opportunity is not just to shorten testing time, it's to make the result more useful. On-site measurement can provide documented, batch-specific evidence of residual lactose concentration, strengthen traceability and reduce dependence on assumptions drawn from previous production. It can also help quality and production teams make decisions at the moment when those decisions have the greatest operational value.

As lactose-free dairy portfolios become more diverse, testing must keep pace with the products being developed. The methods that create the most value will combine speed with specificity, matrix flexibility, reproducibility and independent validation - turning lactose measurement from a delayed checkpoint into an active production tool.

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A world of ingredients, an agenda to match: Fi Europe 2026 agenda unveiled

Fi Europe, the world's leading food ingredients event, today reveals the full content agenda for its 2026 edition, promising three days of expert analysis, practical inspiration, and the connections that turn ideas into action.

Returning to Messe Frankfurt, Germany, from 17–19 November, this year's show will feature a range of expert talks, panel discussions, and deep dives from academia, start-ups, multinationals, consultants and researchers such as Innova Market Insights, Mintel, Euromonitor International, and FMCG Gurus.

"Rapid transformation is redefining what the food, beverage and pet nutrition sectors can offer consumers," said Francesca Berry, Head of Content Programming at Informa Markets. "GLP-1 medications are rewriting R&D briefs, pet owners are applying their own nutritional standards to what they feed their animals, and new technologies are changing what is possible to manufacture at scale. Our 2026 programme brings the expertise behind those shifts into one place, creating a platform where the whole value chain can solve shared challenges, uncover new opportunities and power what comes next."



Formulating food for the GLP-1 era

Few developments have moved through the industry with more impact and speed than GLP-1 medications. Rapidly rising GLP-1 use around the world is completely reshaping consumers' appetites, nutritional needs, and expectations. Even among people not using the medication and markets where adoption is slower, interest in weight management, satiety, and blood sugar control has exploded.

This is why day three of Fi Europe 2026 is dedicated to a Weight Management Spotlight exploring the significant challenges and opportunities within this sector. A highlight of the programme will be an expert editorial session from Sophia Cornelius, Specialised Nutrition Analyst at Mintel, entitled From pharmaceuticals to food: What the GLP-1 era means for nutrition innovation. In her talk, Cornelius, a registered dietitian, will examine both the products serving GLP-1 users directly and the wider ingredient strategies targeting appetite management, satiety and metabolic health.

Rising expectations in pet nutrition

The new Pet Food and Nutrition Forum programme dives into how the continued humanisation of pets is raising the bar in one of the food industry's fastest-growing categories. In Transparency, trust and consumer expectations in pet nutrition, a panel including Mike Hughes, Head of Research and Insight at FMCG Gurus, and Bill Bookout, President of the National Animal Supplement Council, brings consumer research and regulatory expertise to the question of how businesses innovate ambitiously while staying compliant – and build lasting trust in the process.

A second panel discussion, Scaling sustainable pet nutrition: From consumer demand to commercial reality, turns to making sustainable products commercially viable. Allison Hamburger, Director of Sustainability and Innovation at the Pet Sustainability Coalition, joins voices from across the value chain to examine alternative proteins, responsible sourcing, and the formulation and cost realities that decide what reaches shelf.

The forces reshaping the global food landscape

The journey from challenge to opportunity to action continues through the Innovation Hub, which gathers voices from research, marketing, procurement and regulatory affairs to explore the technologies, regulations and consumer demands driving change across food and beverage.

Lu Ann Williams, Co-founder and President of Innova Market Insights, returns to reveal Innova's Top 10 trends in F&B for 2027, unpacking the consumer behaviours and market shifts set to drive innovation over the coming year. Ina Dawer, Head of Ingredients at Euromonitor International, follows with Beyond protein: Where FMCG innovation is heading next, charting the wellness platforms scaling fastest across food, beverages, supplements and beauty, and the demands fuelling their growth.

Further sessions examine the scientific advances and technological breakthroughs moving from laboratory to production line, alongside the retail platforms and buying patterns transforming how finished products reach shoppers.

Securing supply, building partnerships

None of this reaches market without supply chains that can absorb pressure. Day three's Innovation Hub spotlight on supply chain resilience brings stakeholders together from across the value chain to examine how the industry strengthens its global sourcing networks, building the foundations that make ambitious innovation possible.

That collaborative spirit runs through the whole event, with a programme of in-person networking events including a Women's Networking Breakfast, focusing on the challenges and opportunities faced by women in the food and beverage industry. Another highlight will be the Future of Nutrition Lunch & Learn for senior decision-makers. These sessions are designed to give attendees the space to meet peers well beyond their own segment, sparking the conversations and partnerships that will shape the industry long after Frankfurt closes.

www.figlobal.com

Fi Europe 2026 Innovation Awards finalists revealed

Fi Europe, the world's leading food ingredients event, has announced the finalists for this year's Innovation Awards, whose winner will be announced at a prestigious ceremony in the Harmonie Hall 5.1 at Messe Frankfurt on 17 November.

The awards celebrate the brands at the forefront of innovation, recognising pioneering solutions that are shaping the future of the global food and beverage industry. This year sees the introduction of the Alternative Protein Innovation Award to reflect the growing importance of plants, fungi, algae, microbes, and insects as sources of protein.

The 2026 finalists by category are:

Alternative Protein Innovation Award
- Bunge
  PurePro® soy protein concentrate
- dsm-firmenich
  Vertis™ TVPs with ModulaSENSE®
- Lallemand Bio-Ingredients
  Engevita® HiPRO Beyond

Dairy Alternative Innovation Award
- KWS SAAT SE & Co. KGaA
  KWS Proteomex® platform
- Nourish Ingredients
  Creamilux®

Food Manufacturing Innovation Award
- GOPACK BV
  Flexivent block bottom bag
- Spectral Blue
  Multi-wavelength, high-intensity (MWHI®) antimicrobial blue light (aBL)

Future Foodtech Innovation Award
- Arborea
  BioSolar Leaf™
- dsm-firmenich
  Maxiren® EVO
- Ferm Labs AG
  Precision AI-bioprocessing
- MOA Foodtech
  Turning byproducts into functional ingredients



Health Innovation Award
- Botanic Healthcare Pvt. Ltd.
  CornFit™
- FrieslandCampina Ingredients
  Social protein
- Wecare Probiotics Co., Ltd.
  Weizmannia (Bacillus) coagulans BC99

Pet Food & Nutrition Innovation Award
- ADM
  PRIOME® Oral Care (OC) postbiotic
- Bene Meat Technologies a.s.
  Coolty Meat
- BENEO
  BeneoFeed FB P60

Plant-based Innovation Award
- Botanic Healthcare Pvt. Ltd.
  Guarsol™
- GNT Group B.V.
  New technology that stabilizes spirulina to deliver natural blues for beverages
- Roquette
  Product launching soon
- Zentis Fruchtwelt GmbH & Co. KG
  ZENTIS thermostable popping bobas

Sustainability Innovation Award
- Beyond Oil LTD
  Food-grade technology that transforms how frying oil is managed in foodservice
- LÍPIDOS SANTIGA S.A
  LIPSA's sustainable coconut oil project for responsible sourcing into impact at origin
- Roquette
  Innovating transport decarbonization across the food industry value chain
- Tereos
  Cultivate Net Zero®, a low-carbon and regenerative agriculture ingredients offer



The shortlisted entries were selected from 133 submissions from all over the world. They were evaluated by a panel of eleven industry experts led by Professor Colin Dennis, Chair, Board of Trustees at IFIS Ltd.

As the home of food ingredients, Fi Europe brings together the global food ingredients community to connect, exchange ideas and share inspiration. Yannick Verry, Fi Events Brand Director at Informa Markets, said: "Innovation today is driven by collaboration, so being able to bring the food ingredients community together is essential to moving our industry forward. The awards shine a light on the people and companies developing solutions that are helping to solve problems and unlock new opportunities, while giving us an opportunity celebrate the hard work, creativity, and passion of the teams behind them."

For more information, visit: Fi Europe Innovation Awards 2026 | Fi Europe

To purchase a pass to attend the awards, see: Fi Europe 2026 Registration | Book your Pass | Fi Europe

www.figlobal.com/europe

ADM
Stand no: 31G90

ADM showcases the future of food Solutions at Food Ingredients Europe 2026

At Food Ingredients Europe 2026, ADM will showcase the future of food solutions, highlighting innovation across several key areas: reformulation, protein transformation, sustainable solutions, science-backed health and wellness for people and pets, personalized nutrition, and innovation powered by science, technology and a resilient global supply chain. These innovation pillars will be spotlighted across several zones and the "Future of Nutrition Hub" within ADM's booth.

While at booth 31G90, visitors can explore ADM's latest solutions, including flavors and Colors from Nature™, plant-based and hybrid protein solutions, advanced functional systems for texture, emulsification and stability, pre-, pro- and postbiotics, as well as sugar reduction and smart sweetening technologies. These cutting-edge solutions will be featured in concepts designed to help food, beverage and pet nutrition brands respond to evolving consumer needs and formulation challenges, such as:

Reformulation & Advanced Nutrition: As nutritional expectations, regulatory pressures and consumer demand continue to evolve and accelerate reformulation, ADM helps brands navigate sugar reduction and the shift toward flavors and colors derived from natural sources while maintaining appearance, taste, functionality and nutrition.

- Protein Transformation: As protein remains a key nutritional priority, innovation is shifting toward protein content, quality and diversity. ADM will showcase plant-based and hybrid solutions designed to balance nutrition, taste, texture, versatility and affordability.
- Sustainable Solutions: ADM will showcase solutions supporting more sustainable food systems, including an ongoing, innovative regenerative agriculture collaboration with Ooni, bringing regenerative wheat from farm to finished food concepts.
- Science-Backed Wellness & Personalized Nutrition: As consumers seek more targeted nutrition and meaningful health benefits, ADM will highlight science-driven solutions including pre-, pro- and postbiotics for both people and pets, along with functional nutrition and emerging opportunities shaped by GLP-1 medication awareness and usage.
- Innovation Built for What's Next: Leveraging science and technology, application expertise and a resilient global supply chain, ADM can help manufacturers turn emerging challenges and changing consumer expectations into new product opportunities.

Visitors can experience ADM's Taste Atelier, where ADM will bring these capabilities to life through culinary-forward concepts, including an ice cream panini featuring unique flavor sensations, focaccia made with wheat flour from our regenerative agriculture collaboration with Ooni, hybrid meatballs, postbiotic and pea protein ravioli, freeze-dried fruits, and more.

ADM experts will also present on pet health innovation and reformulation during FiE 2026.

www.adm.com



ALLAND & ROBERT
Stand no: 31M56

Alland & Robert showcasing gum acacia solutions at Fi Europe

Alland & Robert's mission is to pioneer gum acacia solutions that contribute to a healthier and more sustainable future.

As the leader of natural gums since 1884, Alland & Robert is focused on creating ingredients for a healthier tomorrow and providing tailor-made support for innovation projects.

Harnessing the vast potential of natural gums, Alland & Robert engages in groundbreaking research while collaborating with industrial sectors, an approach that prioritizes a virtuous cycle benefiting both the planet and humanity. Central to Alland & Robert's mission is the development of cutting-edge gum acacia products that deliver superior nutritional benefits, including high fibre content, improved gut health, lower glycemic indexes, and enhanced consumer nutrition.

Gum acacia that goes beyond

The Beyond Acacia® range stands as a technological and environmental showcase, manufactured using an innovative process to produce highdensity granules that are highly soluble, energy-saving and easy to use. The format and characteristics of the granules provide excellent wettability compared to standard gum, and their fast hydration makes the dispersion process more efficient.

All functional properties are preserved: once dissolved, the quality is identical to regular and instant grades. Every one of Alland & Robert's acacia gum qualities can be manufactured as part of the Beyond Acacia® range to meet different client needs.

Alland & Robert works hard to improve energy performance during manufacturing, which generates most of its acacia gum-related emissions.

Other emission sources have also been targeted as part of a dedicated action plan.

With minimum 90% fibre content

Beyond its nutritional value, gum acacia offers practical benefits for food formulations. It boosts fibre content, helps reduce sugar and fat, and supports the development of better-for-you products. For years, Alland & Robert has been a trusted partner for customers formulating products with acacia fibre, leveraging its expertise to optimize product performance.

Gum acacia is a powerful tool for better-for-you formulation. High in fibre, it supports gut health, helps reduce sugar and fat, and fits vegan, gluten-free, keto, no-gelatin and low-FODMAP diets. Gum acacia recently earned FODMAP-friendly certification, reinforcing its place in healthconscious product development.

A vegan gelling agent for the substitution of gelatin

Consumers are increasingly looking for plant-based ingredients as a substitute for products of animal origin. Food industry operators must now find ways to address these powerful societal trends, in particular producers of confectionery products, jellied sweets, marshmallows and dietary supplements. With Syndeo® Gelling, Alland & Robert provides these producers with an innovative and multi-functional agent. Its composition combines 100% plantbased hydrocolloids including gum acacia, with their joint properties offering a compromise between gelatin and pectin. Being plantbased, its environmental impact is lower than that of animal-origin products. Its use does not alter the sensory properties of jellied sweets; it is odourless, colourless and flavourneutral.

A multi purpose product, its formula is suitable for a vast range of confectionery applications.



Superior emulsion performance

Alland & Robert's Emulse Max is an innovative solution of gum acacia that strongly improves emulsion performance. The emulsifier market in food and beverage formulation has evolved rapidly over the last few years, with an increasing demand for cleaner products and a market expectation for superior performance that matches synthetic emulsifying additives.

Gum acacia is already widely used in the food & beverage industry as an emulsifier, and it has the advantages of being 100% plant based, sustainable and clean label. Alland & Robert's Emulse Max is the result of our R&D research and expertise, and an answer to formulators looking for exceptional performance. This high performance grade of high-viscosity gum acacia delivers an exceptional emulsion stability and increased oilload capacity in emulsions.

A customized consultancy service

Alland & Robert Services underscores the company's dedication to helping businesses meet evolving consumer demands while maintaining a sustainable, forward-thinking approach. Founded on a commitment to excellence and innovation, Alland & Robert has been at the forefront of natural gum production for decades.

By combining sustainability, nutrition, and cutting-edge research, the company empowers industries to create products that resonate with modern consumers and support global well-being.

www.allandetrobert.com

ARLA FOODS INGREDIENTS
Stand no: 30J94

New whey concepts and a shared message of 'Growing Stronger Together' on show in Frankfurt

Arla Foods Ingredients and wheyco, DMK Group's whey business, are to exhibit together at a trade event for the first time since the merger of their parent companies.

On 1st June, Arla Foods and DMK Group came together to form Europe's largest dairy cooperative. At Fi Europe (17th-19th November in Frankfurt), Arla Foods Ingredients, a subsidiary of Arla Foods, will demonstrate how the merger has created a new, stronger ingredients business.

The DMK Group and Arla Foods Ingredients stands will be located opposite one another, both carrying a message of 'Growing Stronger Together', with DMK's subsidiary wheyco represented on the Arla Foods Ingredients stand.

Anne Widart, Vice President, Commercial, at Arla Foods Ingredients said: "One of the many benefits of the merger between Arla Foods and DMK Group has been the creation of an ingredients powerhouse. It has unlocked new synergies and opportunities, allowing us to build something even better for the future. Fi Europe is the perfect platform to demonstrate our shared ambitions in the most tangible way possible, and we're excited to have the opportunity to show the industry first-hand how we're working together."

Earlier this year, Arla Foods Ingredients debuted its 'Targeted GLP-1 Companion Nutrition' concept, which demonstrates how nutrient-dense products can help meet the needs of GLP-1 users. At Fi Europe it will showcase new applications for the concept, including a spoonable yogurt and a drinking yogurt, alongside a fermented, high-protein shot and a high-protein water-based shot.

Meanwhile, the 'Unlock Permeate' concept will demonstrate how Arla Foods Ingredients' Variolac® can help improve cost-effectiveness and sensory properties across the dairy, bakery and confectionery categories. Made using a nanofiltration process, the benefits of the whey permeate ingredient include mild milky taste, high cost efficiency, and high content of calcium, magnesium and potassium.

Additionally, visitors will be able to sample new solutions targeting consumers in the active nutrition segments. They will



include protein shakes, protein waters, and the AirBar – an aerated milk protein bar with a light texture that brings a new sensory experience to the protein bar category.

Anne Widart added: "These concepts typify Arla Foods Ingredients' commitment to innovation – whether that's solutions for the GLP-1 revolution, active nutrition, or demonstrating how our whey permeate can improve both taste and cost efficiency. As we go forward, with our expertise and capabilities further enhanced by the merger, we know we'll be able to deliver even more added value to our customers."

Meanwhile, DMK Industry will showcase how its fat-filled ingredients, TOPPICS®, FATTICS® and BATTICS®, and Sweetened Condensed Milk portfolios can bring texture, stability and sensory appeal to indulgent applications. Under the theme 'Enjoy Life. Indulgence in every moment', visitors can experience this versatility through four indulgent concepts: cupcakes with an aerated topping, chocolate caramel cookies, chocolate espresso fudge and a Café Bombón. Together, they showcase how DMK Industry ingredients combine convenient processing with targeted functionality, from stable aeration and fine bakery textures to creamy mouthfeel, rich dairy and caramel notes, and visually appealing finished products.

Arla Foods Ingredients will exhibit at Stand #30J94, across the aisle from DMK Group at #30K94.

www.arlafoodsingredients.com

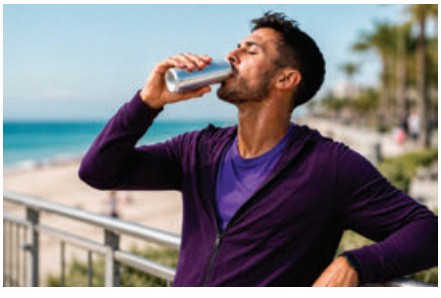
BALCHEM
Stand no: 30D68

Balchem shows how "Better-For-You" innovation drives consumer appeal and production performance

Balchem, a leading global manufacturer of specialty ingredients for human nutrition and health, is returning to Food Ingredients Europe to broaden the conversation around "better-for-you" innovation, exploring how smarter formulation can deliver both nutritional and functional benefits, along with greater manufacturing efficiency. At booth #30D68, the company will spotlight its advanced micro-encapsulated ingredients for meat and bakery, as well as making its debut in the functional food and beverage space with science-backed ingredients for cognitive, bone, and heart health. Visitors will have the opportunity to experience these solutions in finished food and beverage applications through a range of market-ready product concepts available on the stand.

Better for Consumers, Better for Production

"The better-for-you snacking category has moved from a niche health trend into the mainstream, with the global market growing at roughly 7-8% annually.[1] Front-of-pack messaging is key here, with consumers looking for fewer unnecessary ingredients and added functional benefits. But delivering those benefits can create new challenges, with increasingly complex formulations affecting taste, texture, stability, and processing," comments Andrew Hart, Director of Strategic Marketing & Business Development, Flavor & Encapsulates, at Balchem Human Nutrition & Health. "For us, the 'better-for-you' ethos doesn't stop with consumers. We make it our mission to make things better for our customers too. By simplifying production processes and improving capacity, we're helping our partners accelerate innovation and turn evolving consumer needs into practical, scalable solutions."



On the show floor, Balchem will demonstrate this approach through MeatShure®, an advanced microencapsulation technology that eliminates the fermentation step and the need for added sugar in meat stick production. This enables higher-capacity production and zero added-sugar claims, supporting protein-rich meat sticks for a wide range of consumers, from weight-conscious users seeking nutrient-dense options, to families looking for a tasty and convenient protein boost everyone can enjoy.

For bakery applications, the company will showcase BakeShure®, a portfolio of acidulants and preservatives that help extend shelf life in yeast-leavened products and deliver unique textures, flavor, and freshness. The range includes solutions for superior leavening in freshly baked, freezer-to-oven and refrigerator-to-oven applications, as well as options that help bakers reduce sodium levels without compromising texture or volume.

Bringing Science-backed Nutrition into the Everyday

This will be the first time Balchem exhibits its minerals and nutrients portfolio at Food Ingredients Europe. The company will spotlight K2VITAL™, its patented, fully bioactive vitamin K2 for bone and cardiovascular health, as well as VitaCholine®, the gold standard in choline salts. At Balchem's booth, visitors can uncover a next-generation organic dark chocolate product, boosted with K2VITAL™, as well as several VitaCholine®-enriched ready-to-drink beverages designed to benefit both cognitive and liver health. Together, these applications demonstrate how targeted nutrition can be translated into tasty, convenient, everyday food and beverage products.

Dominik Mattern, VP Science, Business Development and Marketing, Balchem Human Nutrition and Health, concludes, "Food Ingredients Europe is an opportunity to demonstrate the potential of our wider mineral and nutrient portfolios, and the solutions they unlock. We combine extensive formulation and application expertise with advanced microencapsulated ingredients, science-backed nutrients, and technical implementation know-how to help customers and prospects bring differentiated, consumer-centric products to market. Our role is to support them from the application stage through to commercialization, making us a complete development partner."

For more information about Balchem and its brands, or to request a meeting with the team at Food Ingredients Europe, visit: **https://balchem.com/hnh/**

1 CoBank, (2026). Protein's promise for meat snack growth.

BARENTZ
Stand no: 31G80

Barentz turns market trends into food and nutrition innovation at Fi Europe 2026.

Barentz, a leading global specialty ingredients solutions provider, will showcase how it turns market trends into opportunities for food and nutrition innovation at Fi Europe 2026 in Frankfurt. From sweet and savory tastings to expert discussions, visitors can explore Barentz's ingredient solutions and formulation opportunities designed to help bring new product ideas to life.

Barentz's participation will highlight the Human Nutrition trends shaping product innovation including protein fortification, fiber and gut health, to sensory and flavour experiences and targeted functional nutrition. Behind each trend lies a different formulation challenge: bringing together nutritional objectives, ingredient selection, technical performance and the consumer experience. At the stand, visitors can taste the Beyond Protein Bars, developed to bring different market trends to life through a familiar snack format. The concepts combine protein-rich ingredients with different textures, flavours and nutritional approaches. Savoury popcorn offers another take on innovation highlighting how seasoning, flavour and crunch can transform a familiar snack into a multisensory experience.

But there is more behind the concepts: Barentz's formulation experts and application specialists will be available to explain the ingredient opportunities behind the samples and discuss visitor's own product development challenges. By connecting market insights with ingredient expertise and application know-how, Barentz helps customers explore how evolving consumer needs can translate into relevant formulation opportunities.

"At Fi Europe, we want visitors to bring us their product development challenges. By combining their ambitions with our teams' ingredient knowledge and formulation expertise, we can explore how to translate changing consumer expectations into food and nutrition concepts that work for their markets." says Mariano Vasconcellos, Global Technical Director Human Nutrition at Barentz.

Visit Barentz Human Nutrition at Hall 3.1, Stand G80 to taste the concepts, meet the team and discover how Barentz is turning market trends into more.

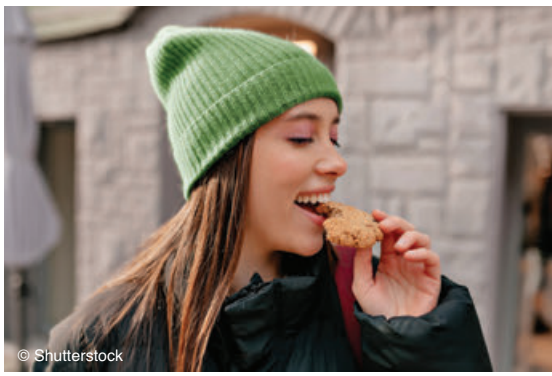
To arrange a meeting, contact **HN@barentz.com**

BENEO
Stand no: 31G70

Visit our stand and find out our latest developments

BENEO has long-term experience in developing and producing plant-based functional ingredients from natural sources for the food, feed and pharmaceutical industries. By supporting health and optimising taste and texture, they help improve the nutritional and technical properties of a wide variety of products. At Fi Europe 2026, BENEO presents its latest ingredient solutions for healthy snacking across dairy, bakery and more. Visitors can try delicious samples and gain inspiration for future product innovations.

www.BENEO.com



BIOIBERICA
Stand no: 51C69

Bioiberica makes Fi Europe debut by showcasing science-backed branded ingredients for next-generation functional foods and beverages

Bioiberica, a global life science company committed to improving human health and well-being, will be exhibiting at Fi Europe for the first time ever, marking a strategic milestone that reflects the growing importance of functional foods and beverages in empowering the health evolution. Through a showcase of its science-backed, biologically-derived branded ingredients portfolio, the company will demonstrate how the same expertise that defines it as a global leader in the health ingredients space can also help food and supplement brands tap into the latest consumer trends for convenient nutrition that supports healthy ageing.

Addressing consumer appetite for functional support

With the terms 'longevity' and 'health span' achieving almost 350,000 mentions across online news outlets and social media platforms earlier this year, the concept of 'living well for longer' is clearly front of mind for today's health-conscious consumers.[1] Bioiberica will centre its debut appearance at Fi Europe around this



trending health area, presenting a range of exciting functional food concepts made with its flagship branded ingredients to support key markers of healthy ageing - such as muscle and joint health, skin and beauty. At stand 51C69, visitors can experience inspiring prototypes featuring hyaluronic acid (HA) matrix ingredients Dermial® (60 mg/day) for skin health and Mobilee® (80 mg/day) for muscle and joint support and Collavant® n2 (40 mg/day) a nextgeneration native (undenatured) type II collagen ingredient for joint health. Beyond these prototypes, attendees can also learn more about DAOgest® (4.2 mg/serving), a premium diamine oxidase (DAO) enzyme targeting histamine intolerance.

Backed by multiple clinical studies and Bioiberica's decades of formulation expertise, these branded ingredients enable brands to develop a wide variety of functional food and beverage innovations. Fi Europe attendees are invited to see these ingredients in action with concepts on display including gummies, protein bars, carbonated juice and bone broth featuring Collavant® n2, as well as Dermial® beverages and gummies. Bioiberica's experts will also be on-hand to share formulation advice.

A significant signal for future growth

"Exhibiting at Fi Europe marks a major step forward in Bioiberica's mission to partner with global food and beverage producers, bringing together our science-led innovation, global supply assurance and application insight to help brands set a new standard for functional nutrition," comments Antonio Vendrell, marketing and communications director at Bioiberica. "Fi Europe is the ideal platform to connect with innovators across the industry. Our focus is simple: provide our partners with the high-quality, low-dose ingredients they need to craft products that slot seamlessly into daily routines and give consumers the support they need to live better, for longer."

For more information on what to expect from Bioiberica's first ever appearance at Fi Europe and how to book at meeting, visit **https://bioiberica.campaign.page/food-ingredients-europe**.

1 Source: Kline + Company Social Listening Analysis, 2025-2026

COSUN INGREDIENTS
Stand no: 31D46

From ingredients to solutions: Discover Cosun Ingredients at Fi Europe

At Fi Europe 2026, Cosun Ingredients will bring its portfolio of plant-based ingredient solutions to life, exploring some of the key developments shaping food and nutrition today. From prebiotic nutrition and the evolving nutritional needs associated with the GLP-1 era to functional beverages, plant-based protein and hybrid foods, visitors can experience how our ingredients can help turn emerging opportunities into appealing food and beverage concepts.

As part of the Cosun booth, together with Aviko Rixona, Duynie and Cosun Beet Company, Cosun Ingredients invites visitors to explore, taste and discuss new possibilities for food and beverage innovation.

As the GLP-1 era puts greater focus to nutritional quality, protein intake and digestive wellness, manufacturers face the challenge of translating these needs into appealing everyday products. Frutafit® and Frutalose® chicory root fibers help deliver meaningful prebiotic benefits across a broad range of applications. Backed by scientific expertise and formulation support, they offer versatile solutions for formats ranging from gummies and beverages to bars, dairy drinks, bakery products and beyond.

In functional beverages, delivering protein-rich nutrition without compromising taste, texture or mouthfeel remains a key challenge. With its neutral taste profile and excellent functional properties, Tendra® fava bean protein helps manufacturers address this challenge. Combined with chicory root fiber for added fiber and prebiotic benefits, and supported by application expertise, it opens up opportunities for nutritious and enjoyable functional beverages.

The tasting experience also extends to hybrid foods. With Fidesse® sugar beet fiber, visitors can discover hybrid meat concepts such as a burger and bratwurst. By enabling partial meat replacement while maintaining the familiar taste, quality and eating experience consumers expect, Fidesse® offers manufacturers an attractive route to more affordable and sustainable hybrid foods.

And there is more to taste, including a sugar-reduced Dutch syrup waffle, showing that indulgence and smarter formulation can go hand in hand.

From better nutrition to better-performing products, discover how Cosun Ingredients turns plant-based ingredients into solutions you can experience.

Curious to taste what's next? Visit Cosun Ingredients at stand 31D46, Hall 3.1, at Fi Europe 2026.

www.cosuningredients.com



CRESPEL & DEITERS
Stand no: 31A20

Crespel & Deiters creates added-value solutions from renewable raw materials

Crespel & Deiters will demonstrate how plant-based raw materials can be turned into functional food ingredients and application-specific solutions through targeted technological refinement. The ever-expanding portfolio of the family-owned company includes wheat, pea and fava bean, with regional soy ingredients set to follow.

Crespel & Deiters will also present its new brand identity, which has been several years in the making. While its food ingredients business was previously known as wheat specialist Loryma, it now positions itself as a refinement expert with a broad raw material portfolio and unrivalled technological and application know-how.

At the booth, Crespel & Deiters will not only highlight its current ingredients but also unveil its collaboration with VEPRONA GmbH from the Münsterland region to secure the availability of singlevariety soy grown in Europe. The aim is to offer sustainable, functional soy ingredients for the food industry, and representatives from both companies will be on hand to discuss possible options.

Solutions for a wide range of applications

The booth is designed as a house, reflecting the holistic approach of Crespel & Deiters comprising its solutions for active nutrition, plantification, baked goods & pasta, breading and confectionery. All showcased innovations make processing more efficient and enable to create end products with an optimized nutritional profile.

For active nutrition products, Crespel & Deiters will demonstrate how protein and texture profiles can be adjusted with Lory® Crisp and Lory® IsoCrisp for bars, nutritionally enhanced bakery products and snacks. The extruded crisps come in different sizes and from different raw material sources, and deliver a crunchy bite in clusters and layers. Lory® IsoCrisp Wheat, based on wheat, provides a high protein content of 65.4g per 100g, while Lory® IsoCrisp Fava, made from fava bean, provides 50.5g per 100g. Hydrolyzed, powdered Lory® Protein H11 from wheat can also be used to complement the protein base.



For baked goods and pasta, the company supports high fiber and protein recipes with Lory® Protein D11 and D12 – denatured wheat proteins that have a neutral taste and light color. The powdered ingredients can be used to enrich a wide range of pasta and bakery products with protein, and two applications will be available for tasting at the stand: butter biscuits and chocolate chip cookies made with Lory® Protein, functional starch Lory® Starch Elara and Vital Wheat Gluten.

The modified wheat starch Lory® Starch Selenit will also be on show. It serves as an adhesive for seeds and toppings, and as a vegan glazing agent. Mixed with water, and with a little vegetable oil for a glaze, it forms a low-viscosity, sprayable and stable suspension, that does not burn on baking trays. In confectionery, Lory® Starch Selenit can also replace glucose syrup as a binder for transparent, sugar-free coatings, and give creams and fillings more body. At the booth, visitors can explore its functional properties in practical bakery applications.

For breading, Crespel & Deiters presents colored Lory® Crumbs for creative product concepts, toppings and seasonal, limited edition offerings. The crumbs are colored with natural coloring foods, are sugar-free, neutral in taste and stay color-stable during cooking. The shades can be mixed or combined and can be used to coat all common substrates or as a topping for baked goods and snacks.

In plantification, animal proteins are replaced or complemented by plant proteins. This functionality will be demonstrated with hybrid meatballs made with Lory® Tex Granules from pea. They have reduced fat content and a firm, meat-like bite.

"In product development, the decisive question is which function the end product must achieve," says Philipp Deiters, member of the Executive Board and CSO Food at Crespel & Deiters. "We combine the selection of plant-based raw materials with appropriate refinement technologies and application know-how, and advise our customers accordingly during product development. At Fi Europe, we'll show solutions that meet specific requirements for on-trend products and, at the same time, add value to the manufacturing process."

www.crespeldeiters.com

FRIESLAND CAMPINA
Stand no: 31G38

FrieslandCampina Ingredients showcases new possibilities for protein

FrieslandCampina Ingredients, a global leader in protein and prebiotics, will return to Fi Europe (17–19 November) in Frankfurt, Germany, with an expanded offering of ingredients and concepts designed to meet growing demand for novel and satisfying ways to consume protein. At stand #31G38, the company will explore a range of possibilities across taste, texture and format, with solutions designed to meet ever-high consumer expectations, including the specific demands of GLP-1 users and the growing opportunities in the children's health market.

Across indulgent bar concepts, high-protein yoghurts and thirst-quenching functional drinks featuring the company's new Nutri Whey™ Isolate Clear PA, the company's showcase will reimagine how protein can be enjoyed.

Clear thinking on functional beverages

Fi Europe will see the debut of Nutri Whey™ Isolate Clear PA, a pre-acidified whey isolate designed for refreshing protein beverages. Combining exceptional clarity with a complete amino acid profile, Nutri Whey™ Isolate Clear PA offers a light body and neutral taste, alongside heat stability that gives formulators greater freedom



a cross still and sparkling applications. This ingredient expands FrieslandCampina Ingredients' clear protein capabilities, opening up possibilities in functional hydration, energy and wellness drinks – a market which is forecast to grow at a CAGR of 8.9% between 2025 and 2030.

The company will also showcase three new clear protein drink concepts, including its new 'Re-vibe' low-sugar protein plus soda. The concept combines Nutri Whey™ Isolate Clear PA with GOS prebiotic fibre to support gut health. Aimed at health-conscious consumers, the concept – which has been shortlisted for the Fi Europe Health Innovation Award – explores opportunities to combine nutrition and refreshment, offering enjoyable alternatives to sugary drinks and alcohol in social settings.

Smaller portions, bigger nutritional expectations

Reduced appetite can make it harder for GLP-1 users to meet their nutritional needs, particularly protein intake. With research suggesting 40–60% of weight lost may come from lean mass, protein density is becoming a key expectation for formulators to deliver on. What's more, FrieslandCampina Ingredients' research suggests the GLP-1 effect is also shaping wider consumer attitudes towards portion size and nutritional value.

In response, FrieslandCampina Ingredients will share innovation inspiration for delivering meaningful nutrition in compact formats. Nutri Boost, a compact shot, packs 20g of protein from fast- and sustained-digesting dairy proteins, while Nutri Balance, a drinkable yoghurt format, delivers 6% protein with a smooth blueberry vanilla taste. Both are made with Nutri Whey™ ProHeat, a microparticulated whey protein especially designed to overcome formulation challenges associated with heat treatment, enabling smooth, high-protein whey drinks.

More protein, less compromise

With one in two consumers replacing confectionery with high-protein or low-sugar alternatives, FrieslandCampina Ingredients will also highlight the opportunity for brands to rethink familiar food formats with novel flavours and textures.

Visitors will be able to sample a selection of high-protein concepts for healthy indulgence made with Nutri Whey™ ProHeat and Excellion® Textpro, including the Melo Bar, a marshmallow-inspired creation with a fluffy core containing 35% high-quality protein, and a Sticky Caramel Protein Bar, which delivers 20% protein in its caramel layer. Together, these concepts put enjoyment at the heart of protein innovation.

Expert insights for every need

FrieslandCampina Ingredients' experts will also take to the stage to share insights on developing tasty nutrition solutions across a range of needs and occasions – including a discussion on the growing opportunities in the children's health market.

In Crafting Next-Gen Protein RTDs: How Consumer Trends Are Reshaping Protein Beverage Development (17 November, 15:00–15:25), Stella Effraimidou, Technical Sales Specialist, and Evelien Bikker, Innovation Marketing Manager, will look at how formulation is evolving to meet new consumer expectations. And in Children Keep Growing. Should Their Nutrition Solutions Evolve Too? (18 November, 11:30–11:55) Carolina Donoso, Marketing Manager for Early Life Nutrition will examine how children's nutritional needs are shaping opportunities for innovation.

"Protein may have become part of everyday nutrition, but we've only scratched the surface of what's possible with it. There is still huge potential to explore what happens when the right protein is combined with the right insights, science and formulation expertise," comments Floor van der Horst, Global Marketing Director for Performance and Active Nutrition at FrieslandCampina Ingredients. "From creating new formats and experiences, to bringing protein into occasions where it hasn't traditionally had a role, we believe that protein can be a driver of innovation – not just a nutritional checkbox. That's where we see the next opportunities for our customers, and we're looking forward to bringing some of these ideas to life with them at this year's Fi Europe."

Visit FrieslandCampina Ingredients' experts on stand #31G38 at Fi Europe 2026
www.frieslandcampina.com

GELITA
Stand no: 31H38

Taste the future of collagen innovation

At Fi Europe 2026 in Frankfurt, GELITA will put functional snacks and beverages center stage. At booth 31H38, the collagen specialist will show how Bioactive Collagen Peptides (BCP®) and gelatin can help turn current consumer needs into enjoyable, differentiated products with added value – from specific health benefits and enhanced nutritional value through to attractive sensory properties.

Selected prototypes will allow visitors to explore how these benefits can be translated into appealing consumer products across a wide range of applications and market positionings.

From healthy aging and sports nutrition to beauty from within and healthy indulgence, GELITA addresses some of today's most relevant functional nutrition markets. Its broad portfolio and application expertise enable tailored solutions for each segment, matching specific consumer needs with the right functional benefit and product concept.

Turning ideas into market-ready products

Creating a successful functional product requires more than the right ingredient. Raw material expertise, application know-how and scientific support are therefore central to GELITA's approach. Its experts invite visitors to discuss formulation challenges and explore how product ideas can be translated into convincing products.

Expert insights live at Fi Europe

GELITA will complement the booth experience with two presentations in the Exhibitor Showcase Theatre, Hall 3, 30A1.

- **Healthy Snacking: Where Consumer Demand Meets Product Innovation**
  Tuesday, November 17 | 12:30–12:55
  Dr. Johanna Schmidgall and Natalie Leuwer will explore the consumer trends shaping healthy snacking and how ingredient innovation can help translate them into differentiated, market-relevant products.
- **Smart Protein Design: Complete Nutrition, Targeted Benefits**
  Wednesday, November 18 | 12:00–12:25
  Suzane Leser will focus on smart protein design and the advantages of combining complete nutrition with targeted benefits.

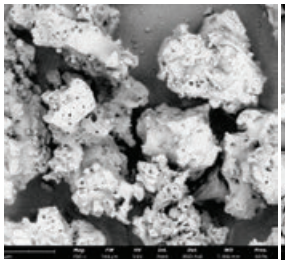
For further information, please reach out to GELITA at
https://www.gelita.com/en/event/fi-europe-2026

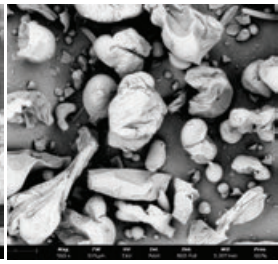

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GLATT INGENIEURTECHNIK
Stand no:

Collagen processing with fluid bed technology

At FiE 2026 Glatt Ingenieurtechnik, Weimar, showcases game-changing technology to process collagen into easily soluble, dust-free, free-flowing granules and peptides. Fluid bed technology





combines spray granulation and spray agglomeration to precisely control particle size distribution (PSD), porosity, and moisture – delivering rapid dissolution, clean handling, and consistent quality at scale. Key advantages are superior instantization, rapid wetting, dispersion, and clear dissolution in cold or ambient water. Dust-free particles with stable flow through all processing stages support clean handling.

The wettability factor

How quickly a protein or other instant product dissolves when shaken or stirred depends on the wettability of its dry particles. To dissolve properly a powder particle must first be completely immersed in the liquid. Conventional spray-dried powders, for instance, are very light and often remain on the surface; they become enclosed by the liquid to form lumps when wetted and then only dissolve slowly.

Advanced technology leads the way

Glatt's integrated spray granulation and agglomeration processes functionalize collagen particles for optimal performance treating the collagen very gently – a clear advantage. This method ensures superior instantization, minimizes dust, and enhances flowability, outperforming conventional spray drying by delivering consistent quality and efficient processing. The entire process is accomplished in one pass through a single machine, eliminating the need for multiple pieces of equipment or excessive handling.

From idea to production

At its technology centre, Glatt provides access to sophisticated technologies and support in formulation, product- and process development, which can all be adapted to individual customer requirements. This always starts with tests on a laboratory-scale system. The in-house analytical team performs in-process analyses to quickly adjust particle properties such as size and bulk density. Then, to facilitate scale-up, process and operating parameters are determined in pilot studies.

Visit Glatt Ingenieurtechnik at booth 41 N48.
https://foodfeedfinechemicals.glatt.com

EXBERRY® BY GNT
Stand no: 30F50

Ube, bubble tea, and beyond: GNT to bring trends to life at Fi Europe with plant-based EXBERRY® colors

GNT will demonstrate how its plant-based EXBERRY® colors can help manufacturers tap into the latest food, drink, and food service trends at Fi Europe 2026 (17-19 November, Frankfurt, Germany).

Based at Hall 3.0, Stand F50, GNT will present a variety of concepts that show how manufacturers can develop cutting-edge products using colors made from non-GMO fruits, vegetables, and plants.

Examples will include purple EXBERRY® concepts that tap into the growing ube trend as well as colorful bubble teas, which will be available to sample at selected times throughout the show.

GNT will also present a food service menu including burgers, soft drinks, milkshakes, baked goods, and snacks. These eye-catching concepts highlight how natural color can help food service suppliers and operators create visually impactful menu items that stand out both in-store and on social media.

Sabrina Moers, Marketing Communication Coordinator at GNT Group, said: "Color is one of the most important tools for helping food and drink create attention-grabbing and memorable consumer experiences. At Fi Europe, we're looking forward to showing manufacturers first-hand how they can develop exciting new products using our plant-based EXBERRY® colors."

EXBERRY® colors are available in a complete spectrum of



shades and can be used successfully in almost any food and beverage product.

GNT's experts will be available throughout the event to discuss the latest industry trends and how EXBERRY® can be used to meet individual project requirements.

Sabrina Moers added: "In today's market, manufacturers need color partners that understand emerging market trends as well as the science of delivering vibrant, stable natural shades. We have almost 50 years' experience working with plant-based colors and know how to deliver on-trend solutions that resonate with modern consumers."

For more information about EXBERRY®, visit:
www.exberry.com

HUGLI FOOD INDUSTRY
Stand no:

Meet Hügli Food Industry at Food Ingredients Europe 2026

Visit Hügli Food Industry at Fi Europe 2026 in Frankfurt and discover our latest innovations – from Bresc Umami compounds to our new snack seasoning concept, "Sauce Culture". Meet our team at Booth 41G44, explore chilled ingredients and dry compound flavour solutions, and enjoy interactive tastings and culinary highlights from 17–19 November 2026.

The Power of Bresc Umami

At Fi Europe 2026, Hügli presents the Bresc Umami collection of chilled compound profiles and clean-label taste solutions engineered for long-lasting savoury impact, richness and mouthfeel. Umami and kokumi signal depth and balance, elevating simple recipes into memorable experiences. By capturing the science behind roasted, fermented and slow-cooked notes, Bresc Umami compounds amplify fullness across applications like chilled spreads, dips, soups, sauces, ready meals and snacks. Designed for food manufacturers seeking consistent taste perception, these compounds translate complex culinary transformations into reliable, scalable ingredients.

This Bresc Umami collection consists of: Umami Compound Seaweed, Umami Compound Mushroom, Umami Compound Smoked Garlic, Umami Compound Onion, Umami Compound Smoked Pepper, Umami Compound Black Garlic, ????????

Why dip when you can crunch?

Alongside chilled culinary compounds, Hügli Food Industry highlights its newest snack seasoning innovation: Sauce Culture. Inspired by iconic table sauces and global street food, this dry compound flavour solution captures liquid sauce complexity in high-impact dry seasonings. Profiles range from rich burger sauces and satay to sweet chilli and Asian glazes. Formulated to adhere seamlessly to chips, nuts and extruded snacks, Sauce Culture delivers authentic sauce flavour without modifying base textures or adding moisture. Manufacturers get a turn-key solution to capture street-food trends with bold depth.



Curious about our Bresc Umami compounds and Sauce Culture snack seasonings? We look forward to welcoming you at Booth 41G44 at Fi Europe 2026 in Frankfurt!
www.huegli.com

HYDROSOL AND PLANTENEERS
Stand no: 31K56

Hydrosol and Planteneers focus on snacking, hybrids, high protein, and clean label

At this year's Fi Europe in Frankfurt, sister companies Hydrosol and Planteneers are presenting exciting new products for the growth categories snacking, hybrid products, and functional drinks. High protein and clean label* solutions round out the offerings. Show attendees can check out these new developments in person at the Stern-Wywiol Gruppe booth No. 31K56.

Hybrid Solutions: The Best of Both Worlds

Hybrid products are gaining steadily in consumer acceptance. And with good reason – they offer the accustomed flavor and consistency of meat, fish, and dairy products, but with better cost structure, and added nutritional or functional benefits. Functional systems from Hydrosol and Planteneers provide manufacturers with a broad base of individual solutions. At Fi Europe the two sister companies are presenting hybrid cabanossi sausages that feature flexible meat reduction of up to 50%. They are protein-rich, sources of fiber, and contain less saturated fatty acids. There are also new hybrid meatballs that likewise supply protein and fiber. By reducing the meat content to 70%, they enable attractive pricing structures in view of the current high beef prices. The functional systems for these meatballs allow for clean label* recipes as well, and can also be used for other formats and flavor profiles, including burgers, cevapcici, ground meat, cold cuts, and chicken products.



For modern one-hand snacking there are hybrid kebab balls with dip already integrated into the product. They come ready to eat and taste good cold or hot. The balls can be offered in clean label* varieties with high protein and fiber content, with the macronutrients advertised on the packaging.

Functional Drinks: Beverages With More

Another new product is a hybrid solution for milk-based drinks. It lets manufacturers replace some of the milk protein with plant protein. With it, dairies can make a high protein drink that meets consumer wishes largely independently of milk protein availability and costs. The drink is a great basis for meal replacement beverages, and can be individually upgraded with suitable micronutrient premixes.

Hydrosol and Planteneers are addressing the "Mood Food & Mental Wellness" trend in cooperation with sister companies SternVitamin and OlbrichtArom, with a relaxing new drink for breaks during the day. This creamy almond-cinnamon flavor beverage is made of lactose-free milk and oats. It has the same protein content as whole milk and supplies natural calcium. A premix from SternVitamin adds magnesium and vitamins B1, B6, and B12, which contribute to normal functioning of the muscles and nervous system.

For modern lifestyles, Hydrosol, Planteneers, and SternVitamin have created a fermented high-protein beverage. This plant-enriched drink combines milk and plant proteins and is fortified with calcium, magnesium, zinc, and vitamins D, B6, and B12. With 20 g protein per 230 ml portion, it's the ideal supplement for meals featuring small portions and high nutritional density. The drink requires no gelatine and can also be made in a low-fat version. Its fruity-fresh flavor rounds out an indulgent experience.



Snacking 2.0: The New Plant-Based Generation

Snacking is increasingly replacing conventional mealtimes, and protein-rich snacks are among the fastest-growing snack categories. Planteneers has developed several solutions to meet these trends. The new Culinary Balls are a real highlight; with them Planteneers has created a whole new product category. Each combines up to three components: A juicy or soft base, an aromatic filling, and a crispy coating. The concept offers plenty of freedom in terms of flavor. From savory Mediterranean to sweet-and-savory creations to fermented flavors like pumpkin-kimchi, it's all about surprising taste sensations. Culinary Balls can be enjoyed hot or cold.

In the high protein snacks space Planteneers has developed a plant-based alternative to beef jerky with 26g protein per 100 g. It features an authentic fibrous jerky texture and an appealing bite. What's more, it needs no cooling and is declaration-friendly*. For those preferring something sweet, the new mango bars are modern alternatives to classic confections. They combine trendy dried fruit with plant protein and contain no added sugar. The clean label* products can be made in different flavors and formats, for example as bars, strips, or balls.

As a plant-based alternative to chicken breast filet, Planteneers offers a mycoprotein version. Mycoprotein has an attractive amino acid profile and gives an authentic, fibrous texture and a juicy bite. The final products come with a crispy breading and can be conveniently prepared in an air fryer. The flexible functional system allows for various kinds of coatings, marinades, and formats, from burgers and nuggets to filets.

With a new functional system for cold cuts, raw ham, and pastrami, Planteneers is presenting the next generation of plant-based charcuterie. The system is designed for clean label* products that feature high protein content, and lets producers dial in an authentic fibrous structure, color, and flavor as desired. Many different varieties are possible, for example with pepper coating, inclusions, and different formats. Attendees at Fi Europe in Frankfurt can learn all about these and other new products at the companies' shared booth No. 31K56.

*Planteneers and Hydrosol define "clean label" and "without additives" as formulations that are entirely free of declarable E-numbers and certain additives like preservatives, flavor enhancers, or added flavors. The formulations can contain natural flavors or seasoning mixes.
www.planteneers.com

ICL FOOD SPECIALTIES AND BARTEK INGREDIENTS
Stand no: 31B6

ICL Food Specialties and Bartek Ingredients showcase expanded ingredient solutions at Fi Europe 2026

ICL Food Specialties and Bartek Ingredients will showcase their expanded portfolio of ingredient solutions at Fi Europe 2026, taking place 17-19 November in Frankfurt. With Bartek now part of the ICL portfolio, visitors coming to stand 31B6 can explore a broader range of solutions across bakery, beverages, confectionery, dairy and dairy alternatives, meat, poultry, and seafood, and alternative proteins.

At stand 31B6, visitors can explore an expanded portfolio of technologies spanning:

- Phosphate Technologies


© Shutterstock

- Stabilising Systems
- Texturisers
- Acidulants
- Plant-Based Solutions
- Taste Solutions

The combined portfolio broadens ICL's formulation toolkit and creates new opportunities to address taste, texture, stability, and performance, including expanded solutions for the confectionery market.

Visitors can sample a variety of prototypes that bring these capabilities to life across key food and beverage markets:

- **Fortified Gummy Bears:** Better-for-you gummy bears featuring Bartek Malic Acid for a well-rounded fruity flavour and hint of tartness. A functional blend of tricalcium phosphate (TCP) and Mag-nificent® dimagnesium phosphate supports optimal colour and added fortification for nutrition.
- **Protein Crème Supreme:** A creamy, high-protein chocolate hazelnut dessert delivering 20% protein, collagen peptides, and magnesium, with no added starches or stabilisers.
- **Lemon Custard Cake:** A moist, fluffy cake baked with LEVONA® Opus leavener, layered with a bright lemon custard featuring BEKAPLUS® Q3B for a smooth, stable texture and Bartek Malic Acid for a bold and tangy citrus flavour.
- **Matcha Protein Glow Beverage:** A smooth and creamy ready-to-drink matcha latte delivering 15% protein and collagen peptides, stabilised with JOHA® B 50 and BEKAPLUS® B 11 for a smooth, consistent texture.
- **Sodium-Reduced, Clean-Label Chicken Breast:** A tender, succulent chicken fillet featuring SALONA® natural mineral salt, TARI® COMBI P 20 NP for improved yield, and TAROMA® CHICKEN CL for natural chicken flavouring.
- **Cost-Optimised Beef Merguez:** A protein sausage made with ROVITARIS® SprouTx® S textured soy protein that awakens the taste buds with top notes of chili, cumin, and paprika from TARI® Spice Merguez.
- **Fresh and Delicious Chicken Cheese Wrap:** A satisfying snack showcasing ICL's capabilities across multiple markets. The wrap features Bartek Malic Acid for improved flexibility, balanced overall flavour profile, and extended shelf life. The tender chicken delivers improved yield with clean-label TARI® COMBI P 20 NP, while the cheese offers a rich mouthfeel with JOHA® S9.

ICL invites Fi Europe attendees to stand 31B6 to sample the prototypes, meet the team, and learn more about how working together can help shape the future of food.
www.iclfood.com

KENSING
Stand no: 30H38

Kensing brings cholesterol management to cream cheese

Kensing LLC, puts a familiar food format at the centre of innovation by introducing light cream cheese enriched with Sunvasterol™ EST, its sunflower-sourced plant sterol formulation. Plant sterols are hailed for their clinically supported cholesterol lowering benefits.

Derived exclusively from sunflower seeds, Sunvasterol™ EST offers phytosterols in a clean-label, non-GMO composition that has been esterified with sunflower-derived fatty acids, to improve their fat solubility. This enables the light cream cheese prototype to retain the classic creamy texture and mild, neutral flavor consumers expect from the popular spread without the grainy or waxy mouthfeel associated with free sterols. In laboratory assessments, Kensing's application demonstrated even distribution, a creamy, spreadable texture and no detectable off-flavours.

This new food concept explores how a breakfast staple or snack can become a medium for plant sterols, offering manufacturers the opportunity to combine nutritional functionality with an enjoyable eating experience. Sunvasterol EST's wider application potential extends to other fat-containing foods, including dairy spreads, yogurts and sauces.

Produced locally at Kensing's facilities in Valencia and Talavera de la Reina in Spain, the sterols are recovered as a valuable byproduct of sunflower oil production, adding an upcycling zero-waste dimension to the ingredient's story.

Sunvasterol™ EST accounts for 6.7% of the cream cheese formulation. Approximately two servings—enough to spread on two halves of a bagel—provide the recommended daily intake of 1.5 to 2.4g plant sterols for achieving 7-10% cholesterol reduction, within 3 weeks. This effect is supported by an EFSA-approved health claim.

Visitors to Fi Europe can discover Kensing's innovative phytosterol and vitamin E applications, where the spotlight will be on transforming ingredient science into familiar, everyday foods with added functional benefits.
www.kensingsolutions.com



MEALA FOODTECH
Stand no: 51SU53

Meala is set to replace 82,000 eggs a day in 2027

Foodtech company Meala FoodTech has more than tripled its production capacity across manufacturing sites in France and Germany, marking a significant step in scaling its clean-label texturizing protein technology for commercial food production.

With this expansion, Meala projects that its ingredients will replace the equivalent of 82,000 eggs per day in 2027, supporting food manufacturers seeking cost-effective, functional alternatives to conventional ingredients.

Meala's proprietary technology delivers binding, gelling, emulsifying, and texturizing functionality, enabling manufacturers to replace eggs and hydrocolloids while simplifying ingredient lists, maintaining product quality and a stable supply chain.

In bakery applications, Meala reports formulation cost savings of approximately 30–40%, depending on the recipe and replacement level. Its single-ingredient solution can be integrated into existing manufacturing processes without requiring equipment modifications, offering manufacturers greater flexibility and reduced dependence on volatile egg markets.

Meala's innovative pea-based ingredients are commercially available through established industry partners: DSM-Firmenich markets Vertis™ PB Pea, designed for savory applications. LASENOR VP-100 is marketed through bakery solutions specialist Lasenor as an egg replacement solution for bakery products. The technology is already making its way into commercial products, with plant-based meat alternatives containing Meala's proteins available across European markets.


© Ditales Studio

Beyond cost, functionality and stable supply chain Meala's technology offers environmental benefits. A life cycle assessment conducted by Van Hall Larenstein University of Applied Sciences reported a 63% lower carbon footprint and 96% lower water footprint per kilogram of protein compared with egg powder.

At Fi Europe 2026, Meala will showcase its technology through egg-free baked goods, demonstrating how clean-label protein innovation can deliver commercial performance at scale.

Visit Meala at Booth #51SU53 to discover its solutions and explore potential collaborations.
www.mealafood.com

NACTAROME
Stand no: 31K46

Nactarome at FI Europe 2026 | New possibilities for natural food & beverage innovation

Over the past year, Nactarome has continued to grow, bringing together new expertise, broader capabilities and wider perspectives from across the food, beverage and nutraceutical industries, to offer an even richer range of natural taste, colour and wellbeing solutions. At FI Europe 2026, we will be sharing the next chapter of our journey.

More Expertise. More Possibilities.
Innovation never stands still. Neither do we.

As consumer expectations evolve and market challenges become increasingly complex, the ability to connect expertise across disciplines becomes more important than ever.

Nactarome continues to strengthen its capabilities across taste, colour, and wellbeing solutions, helping customers bring new ideas to life with confidence.

Looking beyond individual ingredients

The most exciting opportunities in food and beverage innovation are rarely driven by a single trend, technology or ingredient.

They emerge when different perspectives, capabilities and insights come together.

That belief has guided Nactarome's evolution and continues to shape our vision for the future.

At FI Europe 2026, we will be introducing a new way of thinking about how great products come to life.

Why visit us?

- Discover new expertise across the Group
- Meet specialists from across our international network
- Explore innovative application concepts
- Taste our latest product launches
- Discuss your next innovation challenge with our teams



• Get an early look at what's next for Nactarome

Ready to Discover What's Next?
Let's Meet at FI Europe 2026

Visit us at Stand 31K46 and discover how Nactarome's growing expertise in natural taste, colour and wellbeing solutions is helping shape the future of food, beverage and nutraceutical innovation.

Drop us an email at info@nactarome.com to schedule a meeting with our sales and technical team in Frankfurt.

www.nactarome.com

NEDMAG
Stand no: 41G13

Nedmag brings practical, magnesium-based sodium reduction to Fi Europe

There is no shortage of talk about sodium reduction, but replacing sodium with something different is not automatically better. At Fi Europe 2026, Nedmag will ask food producers and journalists a more useful question: what does the replacement genuinely add? Visitors can taste the answer at stand 41B65 in Messe Frankfurt, 17–19 November.

Novasal Blend directly replaces regular salt 1-to-1, enabling a consistent 30% sodium reduction without recipe or process changes while maintaining taste and technical performance. It also adds magnesium, with all components sourced from the ancient Zechstein Sea for consistent quality and reliable European supply.

"There are many ways to reduce sodium, but making an ingredient different does not necessarily make it better," said Willem-Jan Bakker, Business Development Manager Food at Nedmag. "Novasal Blend is simple: replace salt one-for-one, reduce sodium by 30% and add magnesium, without changing the recipe or process. It is a clean-label mineral solution from a reliable European source and members of the media and visitors can taste the results at Fi Europe."

Put sodium reduction to the taste at stand 41G13

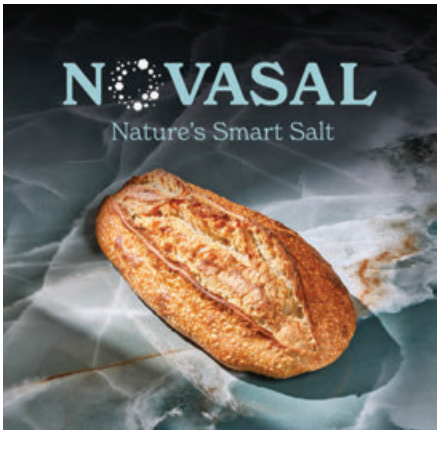
- Aged Dutch cheese: De Veendammer, a full-fat 48+ Dutch cheese made with magnesium salt from the Zechstein Sea. Produced by De Venehoeve, it contains 1.5 g salt and 120 mg magnesium per 100 g, while retaining a rich, creamy flavour and smooth texture.
- Tomato cream soup, developed in cooperation with Yama Products: Made with Novasal Pure, achieving at least 35% sodium reduction while maintaining its rich flavour.
- Savoury cheese puffs: Light, freshly baked cheese puffs with a creamy Veendammer cheese filling. Made with Novasal Blend, achieving over 30% sodium reduction while preserving their rich, savoury flavour and texture.

Taste first, then discuss: ask Nedmag about lower-sodium opportunities across bakery, dairy, soups, sauces, snacks, meat and ready meals.

Interview opportunity

Willem-Jan Bakker, Business Development Manager Food, will be available to discuss sodium-reduction challenges and application-specific opportunities.

www.nedmag.com



NOTCO AI
Stand no:

NotCo AI founder Matías Muchnick to discuss AI-powered R&D and ingredient substitution at Fi Europe

Matías Muchnick, founder and CEO of NotCo AI, will join two sessions at Fi Europe exploring how artificial intelligence is changing food product development and helping manufacturers respond to increasingly complex formulation challenges.

On Tuesday, November 17, from 4:40–5:05 p.m. at the Fi Conference Theatre, Muchnick will present "The End of the Ingredient Guessing Game: How AI-Powered R&D Is Transforming Food Innovation."

While much of the AI conversation has focused on software, Muchnick will examine its potential to transform physical product development. The session will explore how AI can help companies model ingredient behavior, formulations and sensory attributes before physical testing, allowing R&D teams to conduct more informed experiments and accelerate innovation.

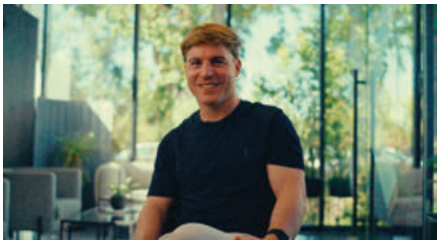
Drawing on examples involving commodity shortages and emerging health needs, Muchnick will also discuss how data-driven formulation workflows can support ingredient discovery, reformulation and speed to market amid climate volatility and resource scarcity.

On Wednesday, November 18, from 3:30–4:10 p.m., Muchnick will participate in the panel "Can We Really Replace It? Engineering Ingredient Substitution in Complex Food Systems."

The discussion will examine why replacing cocoa, sugar, palm oil, proteins and other ingredients is rarely a straightforward one-for-one swap. Panelists will consider how ingredient changes affect texture, flavor, stability, shelf life and processing simultaneously, as well as the trade-offs between health, sensory performance, cost and supply resilience.

Both sessions will take place at the Fi Conference Theatre, stand 30A94.

www.notco.ai



NUTRIVEO
Stand no: 31A64

Nutriveo brings fermentation and clean-label expertise together at Fi Europe

Millbo and Cain Food Industries have united under the new name Nutriveo, bringing together complementary expertise to advance natural, clean-label solutions for industrial food manufacturers worldwide. By controlling the process from fermentation to finished product, Nutriveo delivers consistent quality and reliability, giving customers greater certainty in a changing ingredient landscape.

Nutriveo's portfolio spans sourdough and fermentation-based ingredients, natural mold inhibitors, enzyme-based improvers and softening systems. These solutions help manufacturers extend shelf life, maintain softness and meet clean-label requirements while delivering consistent product quality.

Visitors can meet Nutriveo's expert team at Booth #31A64, listed under MILLBO s.r.l., to explore its clean-label ingredient solutions and latest innovations.

For more information, visit **www.nutriveo.com**


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PROSUR
Stand no: 31B100

Prosur shows how to "Protect Food with Food" at Fi Europe

Prosur will showcase its natural ingredient solutions at Fi Europe, demonstrating how its "Protect Food with Food" approach can help manufacturers adapt to a changing regulatory and consumer landscape.

Across Europe, there is a shift away from ingredients perceived as unnatural or synthetic. Last year the EU lowered the levels of nitrite and nitrate additives permitted in processed meat, fish and cheese, and half of European consumers say they prefer a natural or clean label approach to healthy eating, with many actively limiting artificial ingredients.[1]

Governments are also getting tougher on sugar – the German cabinet, for example, recently approved draft legislation to tax sugar-sweetened drinks. Meanwhile, brands are looking for sweetener solutions that allow them to offer nutritional benefits, as well as reducing or removing sugar.

Prosur's Get it Natural™ toolbox contains a range of natural and clean-label solutions created with a philosophy of "protecting food with food". They can help manufacturers remove unwanted chemicals, and reduce sugar, artificial sweeteners and salt, while improving taste. Additionally, many of them offer nutritional benefits. For example, Prosur's carob-based sweetener systems deliver dietary fibre and naturally occurring polyphenols.

At Fi Europe (17th to 19th November in Frankfurt), Prosur will debut 'GIN* Drinks & Food' – a purely showcase brand. Under the GIN* label, it will present a range of application concepts made with solutions from the toolbox, including meat snacks, ready-to-eat dishes, condiments such as mayonnaise, baked goods and beverages.

Simon Claessens, Global Director, Sales & Business Development, Prosur, said: "The environment in which Europe's food and beverage manufacturers operate is undergoing a fundamental transformation, with both governments and consumers driving a shift away from synthetic towards natural. Meanwhile, ingredients, in particular sweeteners, are being asked to do more than ever – to deliver taste, nutrition, functionality, sustainability and cleaner labels. At Fi Europe, we'll be demonstrating how the Get it Natural™ toolbox – based on our philosophy of protecting food with food – can help meet all these needs."

Prosur will exhibit at Stand #31B100 at Fi Europe.

1 Innova Market Insights, European Clean Label Trends, 2025

www.prosur.es



PROVA
Stand no: 41F66

Taste the future: How PROVA's portfolio of nut extracts and flavors helps manufacturers navigate raw material challenges

At Fi Europe 2026, PROVA will showcase 80 years of flavor expertise, sensory science and application know-how designed to help customers address ingredient sourcing, reformulation and innovation challenges.

Raw material shortages, price fluctuations and supply chain uncertainty are reshaping the food industry like never before, which means manufacturers need new ways to ensure taste, quality and consistency for an optimal flavor experience. Here, PROVA is a proven and powerful partner.

To help manufacturers maintain assured sensory excellence in the wake of market volatility, PROVA offers a range of authentic nut flavors and extracts. At its stand, visitors can enjoy the intense, aromatic and full-bodied indulgence of pistachio, hazelnut, peanut, coconut and pecan, and also learn more about PROVASENS® – the company's in-house dedicated sensory analysis department, helping them characterize and compare flavor profiles, understand consumer preferences and assess how flavors and products are perceived. It is an important part of how PROVA translates sensory insights into better, more relevant flavor solutions for customers.

Tailor-made solutions

As almost every type of nut has experienced significant price swings in recent years, PROVA's extracts and flavors can help reduce manufacturers' dependency on raw materials by creating tailor-made, alternative solutions. They are particularly well-suited to plant-based drinks, protein shakes, coffee beverages, protein bars, muesli mixes, desserts, bakery fillings, sweet spreads and confectionery and support a luxurious taste sensation. They can also help mask the off-notes often associated with plant-based proteins.

Cost-effective and readily available

From pistachio, peanut and hazelnut, to pecan and coconut, PROVA's nut profiles help manufacturers address cost, availability and reformulation challenges while delivering authentic and indulgent taste experiences. Nutty notes can also help plug the sensory gap caused by a reduction in use of other costly raw materials.

They are a perfect inclusion for functional products too, which have huge consumer appeal – but only if they taste good. When active ingredients or plant proteins are involved, nut profiles are an ideal choice, as they help mask off-notes and lift the entire sensory profile. Peanut brings a salty, roasted character, for example, while hazelnut promises a range of flavor sensations, from intensely roasted to fine and creamy. Pecan has a maple, caramel-like note that pairs particularly well with vanilla and chocolate, and pistachio flavors range from fresh and green, almondy and mild, to roasted and full-bodied.

Creamy coconut notes are also in high demand and add a distinctive flavor profile for food and drink products. They work in perfect harmony with vanilla, chocolate and caramel, as well as the trending Asian profiles that are currently driving product innovation. A coconut flavor softens the astringent, often bitter notes associated with matcha green tea powder. In plant-based applications, it feels rich and indulgent, and provides a unique signature taste.

Taste it, create it!

At FiE, anyone wanting to explore these profiles first-hand can meet PROVA's experts who will be happy to discuss its range of solutions. There will also be the opportunity to learn more about the capabilities of PROVASENS® – which delivers sensory insights and a deeper understanding of consumer expectations. Finally, Chef of the Atelier PROVA Christophe Vicente will be presiding over the "Comptoir Gourmand" showcasing a range of exclusive food and beverage creations. He will also offer insights into inspiring, market-ready concepts that highlight the full potential of the company's portfolio.



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Turning challenges into opportunities

Meet our experts at Stand 41F66 and discover how PROVA combines flavor expertise, sensory intelligence and culinary creativity to turn market challenges into inspired opportunities for innovation and growth.

www.prova.fr

RAPS GMBH
Stand no: 51C28

Combining taste & functionality at Fi Europe 2026

Meet RAPS at Fi Europe 2026 in Frankfurt and discover how taste, functionality and technology come together in real food applications. At booth 51C28, visitors can explore ingredient solutions across meat, plant-based and hybrid products, bakery, dairy, sauces, ready meals, confectionery and snacks. Live tastings and application concepts demonstrate how RAPS translates ingredient expertise into products that deliver both distinctive taste and reliable performance.

With decades of expertise in spices, seasonings and blending, RAPS supports food manufacturers in developing products that meet both consumer expectations and technical requirements. From individual ingredients and customised blends to complex seasoning and functional systems, RAPS combines raw material expertise, formulation know-how and application experience to help customers overcome formulation and processing challenges while creating products consumers will enjoy.

At the booth, visitors can discover a variety of concepts that showcase how ingredients, technology and application expertise work together. Whether the goal is to optimise taste and texture, improve product stability, support clean-label positioning, reduce salt, enrich products with protein or fibre, or address specific processing requirements, RAPS develops solutions tailored to individual products, production processes and market needs. Through live tastings, visitors can experience first-hand how the right combination of ingredients and technologies can create successful food concepts across a wide range of applications.

A particular focus at Fi Europe will be the technologies behind these solutions. Visitors can learn more about CO_2 extraction, microencapsulation and RAPS Freshline Technology. CO_2 extraction enables the production of highly concentrated botanical extracts with authentic flavour profiles and consistent quality, while microencapsulation helps protect sensitive ingredients and enables controlled release. Freshline Technology offers versatile solutions based on chilled and frozen raw materials, supporting authentic taste experiences and convenient industrial processing across multiple food categories.

The showcase will also feature selected concepts from the RAPS Culinary Challenge "Authentic Asian". Inspired by culinary trends, international food scouting and authentic Asian taste profiles, these concepts demonstrate how culinary inspiration can be transformed into scalable solutions for industrial food production. Visitors can experience the concepts firsthand and exchange ideas with RAPS experts about future product opportunities and emerging market trends.

Visit RAPS at booth 51C28 in hall 5.1 and experience how ingredient expertise, culinary creativity and technology come together to shape the next generation of food products .

www.raps.com


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SALTWELL GROUP
Stand no: 42N46

SALTWELL® puts flavour in focus with next-generation sodium reduction

Clean-label sodium reduction solutions with exceptional flavour will take centre-stage for SALTWELL® at the forthcoming Food Ingredients Europe.

SALTWELL® salt is a unique natural salt 35% lower in sodium than conventional salt but with equivalent functionality and taste – or, in some cases, improved taste. It is suitable for use across a wide range of food applications in the meat, bakery, dairy and ready meals categories, as well as soups, sauces and condiments.

At Fi Europe, formulation experts from SALTWELL Group will host a range of taste tests to demonstrate how it's now possible to reduce sodium – by as much as 40% in some applications – without impacting negatively on sensory attributes or shelf-life, and without sacrificing clean labels.

Anders Hansson, CEO of Sweden-based SALTWELL Group, says: "SALTWELL® is the perfect like-for-like replacement for conventional salt, and sensory tests have shown that in some cases it can actually improve flavour. Experiencing it in person is the ideal way to appreciate its outstanding flavour. When they get the opportunity to try it, people are often surprised that a natural salt with 35% lower sodium is able to deliver such great taste."

Earlier this year, SALTWELL Group announced it had opened a new factory in Chile, close to the source of its raw materials. The new state-of-the-art facility, in Santiago, has enabled the company to increase production capacity significantly and create an even more robust supply chain.

Learn more about SALTWELL® salt on Stand 42N46 at this year's Food Ingredients Europe (Frankfurt, 17-19 November 2026).

www.saltwellsalt.com



STERNENZYM
Stand no: 31K56

SternEnzym showcases enzyme solutions for dairy products, nutritional supplements, and gluten-free wafers

At Fi Europe 2026 in Frankfurt am Main from 17–19 November, SternEnzym will showcase enzyme solutions for current challenges in the food industry. The focus is on solutions for the production of dairy products, nutritional supplements and gluten-free wafers. At the Stern-Wywiol Group's booth, visitors can talk to experts from SternEnzym and seven of its sister companies. Under one roof, they can access enzymes, vitamins, flavors, baking enhancers, stabilizing systems, and other functional ingredients, as well as combined solutions.

Enzyme solutions for dairy processing

Dairy products are one of the world's most important staple



foods. Enzymes offer producers many ways to improve product quality and process efficiency. SternEnzym focuses on two established application areas.

Lactase can be used to produce lactose-free or lactose-reduced versions of milk, yogurt and many other dairy products. At the same time, it prevents lactose from crystallizing in ice cream and sweetened condensed milk, thus avoiding the undesirable "sandy" texture. Lactase also offers another advantage for product development – when lactose is enzymatically hydrolyzed, the resulting monosaccharides, glucose and galactose, are sweeter than lactose. Manufacturers may therefore reduce the amount of added sugar in products like milk-based beverages.

For yogurt, SternEnzym offers a combination of transglutaminase and phospholipase. Products with low fat content often have a mouthfeel described as "less rich and creamy". The enzyme combination increases the strength of the protein network, resulting in a fuller, creamier consistency. It also helps to prevent syneresis.

Enzymes for nutritional supplements

Enzymes are gaining importance in nutritional supplement products designed to support digestion. SternEnzym offers manufacturers a broad portfolio of enzymes for different applications. This includes starch-degrading amylases, proteases for enhanced digestion of protein-rich meals and lipases to help with metabolization of fat. Other enzymes, such as lactase, alpha-galactosidase and cellulases/hemicellulases complete the offering and enable the development custom-made enzyme blends or single-enzyme solutions for specific dietary needs.

Together with its customers, SternEnzym can develop tailored enzyme formulations that can also be combined with other ingredients like vitamins and minerals.
www.sternenzym.de

STERNVITAMIN
Stand no: 31K56

Fi Europe 2026: SternVitamin translates consumer trends into innovative product concepts

At Fi Europe 2026 in Frankfurt, SternVitamin, a global supplier of micronutrient premixes, showcases how current consumer needs and nutritional trends can be translated into concrete product concepts by applying micronutrient know-how. Together with other companies of the Stern-Wywiol Gruppe, SternVitamin presents four micronutrient solutions that address various consumer topics – from changing dietary habits to well-being, and practical nutrition to longevity. The combined expertise of all sister companies brings out individual product concepts that integrate nutritional design, usage, and taste.



From November 17-19, 2026, SternVitamin will exhibit at the Stern-Wywiol Gruppe trade show booth 31 K 56 in Frankfurt, Germany. As part of the group's Food Ingredients Division, SternVitamin will be presenting its expertise alongside the seven sister companies Mühlenchemie, Hydrosol, SternEnzym, DeutscheBack, Planteneers, OlbrichtArom and Sternchemie.

Compact Nutrition for Evolving Dietary Patterns and Well-being in Everyday Life

In response to evolving eating habits, SternVitamin, Planteneers, and Hydrosol have developed a fermented plant-enriched drink with high protein content and fruity flavour. The drink provides a convenient combination of protein and key micronutrients to support muscle function, energy metabolism, and everyday performance. It contains vitamin D, B6, B12, calcium, magnesium, and zinc, which support important bodily functions such as normal energy metabolism and red blood cell formation.

Another plant-enriched drink has been designed to inspire "everyday moments of well-being." The drink is lactose-free and contains calcium, magnesium, and vitamins B1, B6, and B12, which support different mental functions. Magnesium contributes to normal nervous system function. The B vitamins support psychological well-being, making this formulation particularly suited to an everyday wellness concept. The almond cinnamon flavor created by OlbrichtArom provides a warm, comforting taste, while the stabilization systems of Hydrosol and Planteneers ensure high product quality and texture.

Combining Individual Expertise to Address a Broad Range of Consumer Needs

Another prime example of a practical nutrition format that successfully combines individual expertise to meet customer needs is an enriched double-chocolate brownie-flavoured protein bar. Created by SternVitamin, Herza, and SternLife, among others, it contains a premix that provides B vitamins and other nutrients for long-lasting performance and immune health. This protein bar not only picks up the food trend for healthy snacking, but also showcases the broad range of applications for micronutrients that SternVitamin is able to address.

Longevity is a steadily growing trend, addressed by the SternVita Longevity Premix – a science-based premix designed to support longevity and healthy aging. It combines vitamins, minerals, and functional ingredients focusing on three crucial areas: cell integrity and metabolism, physical resilience and defenses, and mental performance and well-being. This instant dietary supplement is designed for daily use and features a grapefruit-yuzu flavor created by OlbrichtArom.

"At SternVitamin, our expertise lies in developing tailored micronutrient premixes that meet the specific nutritional and technical requirements of our customers. As part of the Stern-Wywiol Gruppe, we can complement this specialist know-how with the expertise of our sister companies in areas such as flavours, stabilizing and texturizing systems and lipid technology. This close cooperation broadens our capabilities and enables us to provide more comprehensive solutions – bringing together different areas of expertise to create innovative products that meet our customers' needs", says Sabine Hildebrandt, Global Head of R&D at SternVitamin.
www.sternvitamin.de

VALIO
Stand no: 30J76

From nutrition trends to products people want

What do evolving nutrition needs look like when they become real products? At Fi Europe 2026, Valio is bringing together dairy science, consumer insight and application expertise to show how emerging opportunities can take shape in practice.

At Booth 30J76, visitors can explore Valio's commercial concepts across optimised nutrition, permissible indulgence and early life nutrition.

A key highlight is Valio's new Recovery Drink application, developed for the changing world of recovery nutrition. As recovery moves beyond traditional sports nutrition towards active lifestyles and everyday wellbeing, consumers are looking for convenient products



that support both energy and recovery. Valio's dairy-based concept combines high-quality milk protein with carbohydrates derived from hydrolysed lactose, demonstrating how dairy can provide more than protein alone.

Visitors can also discover high protein applications, explore approaches to sugar reduction through no added sugar and reduced-sugar milk chocolate concepts, and learn more about Valio's solutions for early life nutrition.

Beyond the applications themselves, Fi Europe is an opportunity to bring your own product ideas and opportunities to Valio experts. Valio supports manufacturers with expertise spanning nutrition, ingredients, formulation and application development – helping move ideas towards products consumers want.

Valio's Sinikka Saikkonen, Senior Business Development Manager, will also take the stage on 17 November to explore how dairy ingredients can respond to evolving nutritional and lifestyle needs, including protein, gut health, recovery and hydration.
Booth number: #30J76
www.valio.com

innovations IN FOOD TECHNOLOGY

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22 GENERAL NEWS · 8 DAIRY NEWS · 5 BAKERY NEWS
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LET'S START THE CONVERSATION

INNOVATIONS IN FOOD (& BEV) TECHNOLOGY
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Redefining systemic health: How precision fiber is shaping the future of nutrition



For decades, dietary fiber was relegated to the background of nutritional science. Commonly regarded as a simple bulk agent or a basic dietary component used primarily to aid digestive transit, it rarely received the spotlight given to high-profile macronutrients or trend-driven supplements. However, a major paradigm shift is currently underway within the global nutraceutical industry. Today, fiber is emerging as a cornerstone of metabolic health, healthy aging, and gut microbiome regulation. Leading this transformation is Aurora Intelligent Nutrition (AIN), a pioneering Spanish company that has positioned itself as the industry's true "Experts in Fiber".

From Functional Fiber to Precision Fiber: A Paradigm Shift

Historically, the food and dietary supplement industries treated fiber as a monolithic, singular concept. Standard formulations focused on "adding fiber" primarily for labeling claims or standard digestive support. Yet, advanced physiological and nutritional research reveals that fiber is far from a uniform substance.

As Carlos Morales, Product Manager at Aurora Intelligent Nutrition, points out, the industry must move away from talking about fiber in the singular and begin understanding fibers in the plural. Compounds with vastly different physiological mechanisms of action have long been grouped under one generic term. AIN's strategic approach centers on understanding how each specific fiber behaves within a given matrix and measuring its distinct impact on human biology.

Precision fiber involves the scientific selection, exact dosage, and specialized application of targeted compounds. Rather than offering broad digestive aid, precision fiber focuses on:

• Modulating the gut microbiota: Selectively





nourishing beneficial bacteria populations to support balanced gut ecosystems.
- Producing key metabolites: Stimulating the secretion of short-chain fatty acids (SCFAs) that act as vital signaling molecules throughout the body.
- Regulating systemic processes: Directly influencing critical metabolic parameters, including blood glucose management and cholesterol absorption.

Through this targeted approach, precision fiber acts as a silent yet powerful metabolic regulator, establishing itself as a vital structural element in healthy aging and long-term wellness.



Overcoming Historical Challenges: Palatability and Digestive Tolerance

Despite the recognized physiological benefits of dietary fiber, mass adoption of functional fiber products has historically faced significant hurdles. Chief among these obstacles are sensory profile limitations, poor palatability, and gastrointestinal discomfort at effective functional doses. High-dose fiber supplements frequently suffered from unpleasant textures, chalky mouthfeel, or undesirable flavors, while causing bloating and digestive irritation for consumers.

Aurora Intelligent Nutrition directly addresses these historical challenges through sophisticated formulation engineering. Leveraging decades of expertise, AIN has developed processing technologies that ensure:

1 Chemical stability: Maintaining active property integrity across diverse application formats.
2 Superior palatability: Eliminating off-tastes and undesirable textures to create smooth, enjoyable sensory experiences.



3 High digestive tolerance: Formulating blends that avoid gastrointestinal distress even when delivered at high, functional dosages.

By solving the taste and tolerance equation, AIN allows brand partners to deliver products that consumers actively enjoy taking consistently, unlocking the full potential of daily fiber supplementation.

The Aurora Intelligent Nutrition Legacy: Crafting Efficacy and Flavor

AIN's unique capability to harmonize scientific efficacy with exceptional taste stems directly from its rich corporate heritage. Based in Estepa (Seville), Spain, the company originated from the historic family business Mantecados La Aurora, founded in 1939. Building upon legendary roots in traditional Spanish confectionery, the business evolved into an R&D&I-driven nutrition model after developing its first high-protein bar in 2006.

Today, AIN combines confection-level flavor artistry with rigorous pharmaceutical-grade manufacturing standards. Operating with a team of over 450 employees and serving clients across 39 countries, AIN holds premier international quality certifications, including IFS Food, FSSC 22000, and GMP.

Rather than acting as a simple contract manufacturer, AIN provides an end-to-end 360º service for Private Label brands. Their comprehensive capabilities support partners through every phase of development:

- Scientific formulation and R&D design
- Regulatory compliance and consulting
- Custom packaging design and branding alignment
- Scaled final production

With a library of over 12,000 custom formulations, AIN delivers precision fiber solutions across a wide range of convenient consumer formats, including functional bars, gummies, soluble powders, vials, gels, capsules, tablets, and creams. Beyond business operations, the company demonstrates strong social commitment through the Aurora Foundation, which actively fosters scientific and technological education in Andalusia via its Desafío IA initiative.

Pioneering the Next Generation of Metabolic Health

The introduction of precision fiber signals the creation of an entirely new category within functional nutrition. Fiber is no longer an afterthought or a basic additive; it is the fundamental infrastructure upon which the next generation of metabolic health and longevity products will be constructed.

By bridging the gap between cutting-edge microbiome science, formulation technology, and consumer sensory satisfaction, Aurora Intelligent Nutrition is setting new global standards. As the industry shifts toward preventive wellness and personalized nutrition, AIN's position as the true "Experts in Fiber" provides brands worldwide with the precision tools needed to transform human health from the inside out.

AURORA
intelligent nutrition

www.aurorainutrition.com

Abolis launches MINE, a Microbial Intelligence platform to unlock actionable insights from biological data

Abolis Biotechnologies, the French biotechnology company specialising in microbial systems and industrial-grade biotech applications, has launched MINE, Microbial INtelligence Explorer, its dedicated microbial-intelligence platform designed to help innovators, manufacturers and R&D teams understand, interpret and act on complex microbial systems. By connecting microbial and multi-omics data with experimental and industrial insight, the tool supports more targeted decisions across product innovation, process development and scale-up.

Microbial systems hold significant potential for industries seeking new approaches to product performance, supply-chain resilience and more sustainable production. However, generating biological data is not the same as knowing how to use it for actionable insights. For many manufacturers and R&D teams, the challenge is not only identifying what microbes can do, but understanding which biological mechanisms and parameters are relevant at the metabolic level and which development routes warrant further investigation.

MINE has been developed with Industrials to address that gap by bringing together genomic exploration, multi-omics analysis and experimental interpretation. It helps teams examine how individual strains contribute to producing molecules of interest, understand interactions within more complex microbial systems and identify levers for process optimisation. By linking those findings to technical and industrial constraints, MINE helps partners prioritise experiments, identify validation needs and focus resources on the most credible development routes.

The foundations of MINE were laid through Microbiome Studio, an ML-enabled analytical platform born out of the Metapath project, an industrial programme supported by the French government. Initially created for Abolis' own microbial-biotechnology programmes, Microbiome Studio was refined through industrial collaborations before being developed into MINE for external R&D and open-innovation teams.

MINE also makes microbial data more accessible to R&D and open-innovation teams, without requiring every decision-maker to be an omics or bioinformatics specialist. Supported by Abolis' multidisciplinary scientific expertise, it enables partners to interpret evidence in the context of their product objectives and technical requirements.

The launch extends Abolis' ideation-to-scale



model by connecting microbial intelligence with its capabilities in strain engineering, enzyme modelling, fermentation, bioprocess development and scale-up support. Partners can therefore assess biological potential and industrial feasibility within the same development programme.

The tool supports work across pharma and healthcare, cosmetics and personal care, food, nutrition and agriculture, including the development of ingredients, biotics, fermentation-derived products and bio-based alternatives.

Sylvia Julien, General Manager, MINE Business Unit, said: "The challenge in microbial biotechnologies lies in the difficulty of integrating the various pieces of information and, therefore, to know which signals matter and which hypotheses deserve further testing for product development. MINE gives teams a clearer way to navigate that complexity, helping them focus experimental work on the questions most likely to move a programme forward."

The launch reflects Abolis' wider focus on making microbial biotechnology more industrially actionable. Founded in 2014, Abolis combines expertise across industrial biotechnology, microbiology, microbial fermentation, metabolism, robotics, and IP strategy, helping partners to turn biological research into validated, industrially relevant development routes.

Cyrille Pauthenier, Co-founder & CEO, Abolis, said: "MINE software release marks the point at which more than a decade of microbial-biotechnology, data and industrial experience of Abolis becomes a platform to boost partners' research and our own research. It strengthens Abolis' ability to support decisions before, during and beyond experimentation, connecting biological evidence with the realities of validation, process development and scale-up. For our partners, that means a clearer route from microbial potential to an industrially relevant programme."

ABOLIS

https://www.abolis.com

Abolis Biotechnologies is a French biotechnology company specialising in microbial systems and industrial-grade biotech applications for the food, cosmetics, healthcare and chemical industries. The company helps innovators, manufacturers and R&D teams understand complex microbial systems and address critical industrial challenges through ingredient and biotics development, process optimisation and product innovation. Combining expertise in strain engineering, microbial metabolism, fermentation and bioprocess development with proprietary technologies and an integrated industrial approach, Abolis supports projects from early discovery through to scale-up readiness and industrial application

German biotech AquaNab targets a $4 billion salmon farming problem with nanoantibody technology - secures funding to combat global sea lice challenge

AquaNab, a Hamburg-based biotechnology company, is developing precision nanoantibody technology to treat and prevent sea lice, one of the costliest and most persistent challenges facing salmon farming. The company, backed by Nordic Foodtech VC from Finland, is the first in the world to apply alpaca-derived nanoantibodies through fish feed, with research demonstrating that the nanoantibodies called AquaNabs can cross the fish's intestinal barrier and enter its bloodstream.

This breakthrough comes as the food industry seeks more sustainable ways to feed a growing global population. Sea lice cost the aquaculture industry an estimated US$4 billion annually in treatment costs, lost production, and fish mortality.

Beyond the economic toll, sea lice pose environmental and animal welfare challenges, raising concerns about chemical runoff, the health of surrounding waters, and the impact of mechanical and chemical delousing methods on fish welfare. As scrutiny from regulators, retailers, and consumers intensifies, producers are seeking more effective, sustainable alternatives.

"Animal welfare and fish health remain the biggest challenges facing sustainable aquaculture, and producers need better tools to protect it," said CEO Dr. Ruth Tamara Montero, an experienced fish immunologist with a PhD from Germany's Friedrich-Loeffler-Institut.

"Sea lice is just the start. Right now, producers are stuck choosing between costly, stressful treatments and losses from the parasite itself. We want to give them a way out of that cycle, one that protects their fish, their business, and helps secure the future of food."

The company's first product is being developed for Atlantic salmon, but the platform is designed to be adapted to bacterial, viral, and parasitic diseases across multiple aquaculture species.

AquaNab has secured an investment from Nordic Foodtech VC, an early-stage venture capital firm focused on solving the hardest problems in food and agriculture, to support the development of its technology. AquaNab represents the first investment outside the Nordics for the venture capital firm.



Dr. Alejandro Rojas Fernandez, Dr. Ruth Tamara Montero, Gunnar Johildarson

Mika Kukkurainen, Partner at Nordic Foodtech, said, "AquaNab has the potential to transform not only how disease is managed in aquaculture, but how we think about health and resilience across food production. By turning advanced nanoantibody science into a practical, feed-based solution, the team is creating a pathway from breakthrough biotechnology to measurable outcomes in farming: lower losses, healthier animals, and greater efficiency. This is the kind of technology that can reshape an industry."

AquaNab was co-founded by Dr. Ruth Tamara Montero, Dr. Alejandro Rojas Fernandez, and Gunnar Johildarson in Hamburg with a mission to transform aquaculture through robust, low-cost, and sustainable precision immuno-therapeutics. The science behind AquaNab builds on internationally recognised expertise in nanoantibody development. Chief Scientific Officer Dr. Alejandro Rojas was among the first researchers globally to develop neutralising nanoantibodies against SARS-CoV-2 and other viruses.

AquaNab is advancing its lead programme towards finalizing proof of concept while expanding collaborations with salmon producers, feed manufacturers, and animal health companies. The company is currently seeking additional investment to accelerate development of its nanoantibody platform and bring its first products to market.

AQUANAB SOLUTIONS

www.aquanab.com

Rising to the occasion: Why beverages are having to hit a higher hark



Jochen Kistner
Director, Category Marketing, Beverage, EMEA
ADM

The beverage category today is innovating at a new pace to keep up with evolving consumer desires and needs. Consumers increasingly expect beverages to play more specific roles in their lives, helping them focus, unwind, hydrate and indulge – often within the same day. Refreshment and great taste remain the most important factors; however, as no amount of added functionality will rescue a drink people don't enjoy.

That raises the bar for product development.

To understand what that looks like in practice, ADM examined non-alcoholic beverage occasions across nine markets, including five within EMEA: Germany, the UK, South Africa, Nigeria, Saudi Arabia, the US, Brazil, Australia and Vietnam. This research identified eight occasion-based consumer segments.

Three consumer segments centre on thirst and pleasure. Fruity Refresh consumers want to rehydrate with drinks that have a more "natural" appeal, those looking for a Fizzy Quench want to satisfy their thirst with familiar flavours they know and love, and Chill & Joy seekers want to cool down and savour the moment.

Three more address how people want to feel. Hydrating Balance consumers aim to stay hydrated while balancing relaxation, energy and wellness. The Sharp & Energized group looks for energy, focus, performance, recovery and immune support, while those Craving Calm want to unwind, feel comforted or satisfy a craving.

The final two segments are about reward and connection. Indulging Experiencers want to treat themselves, while Celebration Elevated consumers want to connect, celebrate and enhance shared meals and social occasions.

An important distinction is that these are not fixed consumer types. They describe needs tied to occasions, so one person can move between several segments depending on the moment and the benefit. The commuter reaching for focus in the morning may want a treat on the sofa in the evening, and a sophisticated alcohol-free option at dinner with friends on the weekends.



In other words, consumers aren't looking for one beverage to meet every need. They're looking for the right beverage for the need they're experiencing now.

Function with Feeling: Consumers Want to Feel the Benefit, Not Just Read It on the Label

Functional drinks have traditionally been designed and marketed around a benefit: energy, hydration, immunity, focus, etc. Increasingly, consumers evaluate them on the emotional experience associated with that benefit. How a drink makes someone feel has become part of its value proposition, and what "feeling" means varies by region.

Two segments show the shift clearly. Hydrating Balance consumers are thirsty for multifunctional choices: they want to feel calm and alert at the same time, making enhanced waters and teas with electrolytes, vitamins and botanicals a promising route. Celebration Elevated consumers are open to novelty but not entirely satisfied with current options. That creates room for sophisticated non-alcoholic tonics and lightly stimulating, botanical-infused drinks that lift everyday social moments as well as special occasions.

For developers, the opportunity is to lead with the feeling and let functionality reinforce the story rather than carry it alone.

While building functionality into an offering, however, it is important to take a holistic view of how final formulations are impacted by each component. The ingredients that deliver function often bring bitterness, astringency or other off-notes, and reducing sugar strips out body and roundness. A drink that tastes like a compromise undermines the very emotional experience it is trying to create. Consumers won't feel the benefit if they can't get past the first sip.

Ingredient Spotlight: Flavour Modulation

Flavour modulation bridges the gap between indulgence and better-for-you offerings. It can mask off-notes, block bitter receptors, balance acidity, restore mouthfeel, support sweetness perception and bring back richness.

ADM's TasteSpark® portfolio is built to address those challenges. TasteSpark® Masking neutralises off-notes and astringency associated with functional ingredients or certain sweeteners. TasteSpark® Mouthfeel rebuilds body and richness in low-sugar applications. What's more, these solutions can be labelled as natural flavouring, answering consumer calls for cleaner-label attributes without trading away taste.

Beyond Sweet: Making Sugar Replacement More Sophisticated

Sweetness isn't going anywhere. Globally, 78% of beverage occasions demand sweet profiles.[1] But the market is saturated with sweetness and is comparatively underdeveloped in sensory complexity. Consumers with more mature, refined palates are looking for more.

The opportunity is not to abandon sweetness

but to layer it with other taste dimensions: swicy is certainly having a moment, and sweet and sour ("swour") or sweet and savoury ("swavoury") could too. Even controlled bitterness, salty notes and botanicals can add depth and nuance to familiar formats.

The Craving Calm and Sharp & Energized segments are leading the shift. They show greater openness to bitter, botanical, tart and layered profiles, while still seeking balance among bold contrasts. Celebration Elevated represents the broadest flavour opportunity of all eight segments, with consumers who actively seek novelty and welcome cross-category experimentation.

In practice, that is showing up in inventive pairings. Strawberry-rhubarb and mango-tamarind play sweet against sour, while mango-chilli, honey-hot pepper and watermelon-lime-chilli bring sweet and spicy together. Strawberry-basil and peach-rosemary add an herbaceous edge, and unexpected fruit combinations such as raspberry-lychee and Asian-inspired citrus flavours resonate with novelty-seeking consumers.

Botanical and floral notes add another layer. Hibiscus, cherry blossom, orange blossom and rose bring distinctive character to fruit-forward drinks. Pairing a ready-to-drink (RTD) green tea with the gentle bitterness of hops, or white tea with hops and passion fruit, builds sophistication while keeping an approachable entry point.

Creaminess is gaining ground too, with orange cream profiles trending, and dirty sodas show how indulgence and flavour exploration can come together. Cocktail-inspired profiles such as salted vanilla sour or pistachio-white chocolate-matcha can also translate to alcohol-free versions, using alcohol-mimicking flavours in place of a spirit base.

Citrus has long been the category's shorthand for bright, clean refreshment. It is now expanding into more culinary-inspired expressions. Burnt and caramelised citrus profiles – think charred lemon or caramelised orange – add depth and complexity to beverages, while also offering a distinctive point of differentiation in food. Matcha-citrus blends show how a familiar note can anchor a more layered profile.

Ingredient Spotlight: Authentic and Layered Flavours

Delivering layered profiles consistently, at scale, depends on raw material access and the technology to translate it. ADM's flavours business is built on that combination, where nature meets precision. ADM translates nature into reliable products to deliver precise, technology-driven solutions to customers' formulation challenges.

That work rests on dependable access to, and deep know-how in, a broad range of raw materials across product lines, including citrus, hops, mint, vanilla, tea distillates and dairy flavours. More than 80% of the portfolio is dependent on or derived from natural components. For developers exploring hop-accented teas or layered citrus profiles, that breadth means the building blocks sit under one roof.

Ingredient Spotlight: Citrus Technology

Advances in technology and technique are helping manufacturers achieve citrus flavour across a range of offerings. ADM's Corefold® citrus oil technology is created through novel, proprietary separation technologies and concentration methods. It focuses on the core of the citrus oil, amplifying the molecules responsible for impact and mouthfeel, and capturing top notes for freshness and aroma that may otherwise be lost in standard extraction methods.



Occasion Polarization: Where We Drink Matters Almost as Much as What We Drink

The third trend in beverages shifts the focus from the drink to the moment. Consumers make different decisions depending on whether they are relaxing alone, commuting, entertaining at home or socialising out.

Occasion-based segmentation starts with a different set of questions than traditional demographic profiling. What is the consumer doing? Where are they, and who are they with? How do they want to feel, and what do they need from the beverage?

Social context and location provide strong clues as to which segment a consumer occupies at any given moment. Mapping the eight segments by whether people are drinking alone or with someone, and at home or out of home, produces four distinct "quench quadrants."

At home, satisfaction tends to run high. Consumers in the first quadrant are those drinking Alone x At Home – the Indulging Experience, Fizzy Quench and Fruity Refreshers – and seek subtle health support, cleaner labels or improved mouth-feel, as long as those attributes don't disrupt what they already enjoy. Chill & Joy consumers are typically With Someone x At Home, and are comfortable and satisfied, which may make them more receptive to new flavour experiences.

Out of home, the opportunity widens. Consumers Alone x Out of Home – the Craving Calm, Hydrating Balance and Sharp & Energized – are open to trying something new, perhaps with botanical complexity. Celebration Elevated consumers, when With Someone x Out of Home, are not entirely satisfied with current choices and adventurous, making them the prime target for premium non-alcoholic alternatives and elevated social drinks.

The same formulation can over-deliver in one quadrant and fall flat in another. A low-key, familiar soft drink suits the solo moment at home; the same drink served at a celebration can feel like an afterthought. Matching the product to the setting, not just the consumer, is where relevance is won.

Finding the Sweet Spot

The beverage category doesn't need to choose between taste and function, indulgence and wellness, or refreshment and experience. Providing the right experience means understanding how consumer desires shift depending on the occasion.

The research points to four priorities. Developers can reduce calories while increasing sensory complexity, because less sugar doesn't have to mean less interesting. They can elevate non-alcoholic drinks into premium social experiences that anchor a celebration rather than simply accompany it. They can embed function in emotional narratives, leading with how a drink makes someone feel. And they can design for occasion micro-moments – solo at home, social out of home, the midday pick-me-up, the evening wind-down – treating each as a distinct opportunity.

Delivering on all four depends on the formulation toolkit as much as the insight. Flavour modulation keeps functional and reduced-sugar drinks tasting the way consumers expect. A broad, largely natural flavour palate makes complexity achievable. And technologies that capture citrus at its most vivid help familiar notes feel new again.

The brands that lead will be the ones that understand how the moments meld with the demos and design drinks to meet them both.

Reference:
[1] ADM Outside Voice , Beverage Lifestyle Report, 2026

ADM®

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Why food producers should capitalise on the rise of bite-sized ice cream and snacking occasions

The way consumers choose to indulge in sweet treats is changing. Health and wellness are now major influences on food and beverage choices globally, with the wellness industry worth an estimated US$2 trillion.[1] Rather than turning away from sweet treats altogether, many consumers are looking for ways to balance indulgent moments with healthier lifestyles.

This presents an opportunity for ice cream producers to respond to changing consumer demand. In the UK, one-third of ice cream consumers say they are interested in trying bite-sized portions.[2] Where mini-ice creams have traditionally been around 40–60 ml/g, the category is now expanding to include bite-sized pieces and chunks of around 25 ml/g. Several trends are converging. Portion control is becoming more important, while snacking culture is creating demand for convenient products that fit more naturally into a wider range of occasions throughout the day.[3]

Ice cream producers should rethink not only the size of an ice cream, but also when, where and why it is consumed. Capitalising on this trend requires more than simply making an existing product smaller.

Consumers still want to indulge, just differently

Health and indulgence should not be viewed as competing priorities. For many consumers, they go hand in hand. Research from Mintel found that 28% of UK consumers would rather eat less ice cream than switch to a lighter version.[4] Smaller portions can provide an alternative route to moderation: retaining the flavour, texture and richness consumers associate with indulgence while reducing the serving size.

This creates opportunities in what is often described as 'permissible indulgence', i.e. products that feel indulgent but still align with health and wellness goals.[5] Rather than focusing solely on calorie reduction, producers can explore how smaller portions work alongside premium or nutritional ingredients, giving consumers greater choice in how treats fit within a balanced diet.

Interestingly, different generations are drawn to smaller formats for different reasons. For example, Boomers are particularly attracted to miniaturised versions of frozen treats they already recognise, while Gen Z is more likely to engage when the proposition feels new, distinctive or premium.[6]

Another opportunity comes from the continued evolution of snacking culture. Busy lifestyles have made grazing and on-the-go consumption a familiar part of many food and beverage categories, particularly savoury snacks. Traditionally, ice cream has been more constrained by format and occasion. However, bite-sized products are helping to expand the range of 0consumption occasions. Examples include Magnum Bonbon and Oreo Ice Cream Mini Bites which offer individual pieces rather than a conventional cone or tub.[7,8]

If ice cream can credibly compete for a wider range of snacking occasions, it creates new opportunities for innovation. It also raises a fundamental question: how do producers translate everything consumers value about a full-sized ice cream into a much smaller format, consistently and at commercial scale?

Small-format products come with different demands

A bite-sized ice cream is not simply a scaled-down version of an existing product. Reducing its dimensions changes how flavour, texture, richness, fat content and melting behaviour are experienced. Recipes and processes that perform well at a larger size cannot automatically be assumed to succeed in miniature.

Precision therefore becomes especially important. As product volumes decrease, even small variations in ice cream flow can have a visible impact on finished size and weight. Tetra Pak® Continuous Freezers provide producers with greater control over production conditions, helping to support consistency across lines and reduce product variation at scale.

Temperature adds another challenge. As an ice cream becomes smaller, its cooling capacity decreases.[9] This leaves less margin for heat-intensive processes, such as dipping products in warm chocolate, without softening or melting the ice cream.

Decoration presents similar challenges. Smaller surfaces leave less room for variation, making precise and repeatable depositing essential for creating visually distinctive products without compromising consistency. Tetra Pak® Decoration Depositing enables producers to create or select decorative designs through software and apply them with precision at scale.[10]

Developing bite-sized products should begin with the complete proposition: recipe, coating, decoration, processing and production line, rather than size alone.

Turning an emerging trend into a scalable opportunity

Flexibility and testing are vital. Consumer trends, often accelerated by social media, continue to evolve rapidly, making speed and adaptability increasingly important.[11]

Development environments such as Tetra Pak's Product Development Centre for ice cream solutions allow producers to pilot and test concepts in a complete production environment before moving to commercial-scale manufacturing.[12] This helps producers understand how a concept performs in practice and refine recipes and processes before committing to full-scale production.

Flexibility at the production level matters too. Lines that can be adapted as demand evolves give producers greater scope to move between formats, from bite-sized products to cones, cups, sandwiches, slices or bars, rather than tying investment to a single proposition.[13]

Changing snacking habits create new opportunities for innovation The rise of bite-sized ice cream should not be viewed simply as a downsizing trend. It reflects a broader shift in how consumers are thinking about indulgence: seeking portion control without necessarily sacrificing enjoyment, while expecting treats to fit naturally into a wider range of snacking occasions.

Producers have an opportunity to respond with formats that reflect how people want to eat today. Doing so successfully means treating small-format ice cream as a category in its own right.

As wellness and indulgence continue to converge, the producers best placed for success will be those who can translate emerging consumer behaviours into products that are appealing, precise, consistent and commercially viable at scale.

References:

1 McKinsey & Company, The Future of Wellness trends: global wellness market estimated at US$2 trillion. https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/future-of-wellness-trends.
2 Mintel, UK Ice Cream Market Report 2024. https://store.mintel.com/report/uk-ice-cream-market-report.
3 Mintel, UK Consumer Snacking Report 2025: https://store.mintel.com/report/uk-consumer-snacking-market-report
4 Mintel, 4 ways brands can unlock frozen yogurt's potential in Europe: 28% of UK consumers would rather eat less ice cream than switch to lighter versions. https://www.mintel.com/insights/food-and-drink/4-ways-brands-can-unlock-frozen-yogurts-potential-in-europe/
5 Forbes, 'Permissible Indulgence' Rules At Annual Sweets & Snacks Expo. https://www.forbes.com/sites/hankcardello/2023/06/13/permissible-indulgence-rules-at-annual-sweets--snacks-expo/
6 Mintel, The Future of Ice Cream 2025. https://store.mintel.com/report/the-future-of-ice-cream
7 Magnum, Magnum Bonbon: Bite Sized Pleasure.
8 Froneri, Ice cream snacking just levelled up with Oreo Mini Bites.
9 Tetra Pak, Downsize your ice creams. https://www.tetrapak.com/en-gb/insights/cases-articles/downsize-your-ice-creams
10 https://www.tetrapak.com/en-gb/solutions/integrated-solutions-equipment/processing-equipment/extrusion/tetra-pak-depositing-decoration-unit
11 ResearchGate, The impact of social media on consumer behaviour: trends, challenges, and opportunities. https://www.researchgate.net/publication/383520229_THE_IMPACT_OF_SOCIAL_MEDIA_ON_CONSUMER_BEHAVIOUR_TRENDS_CHALLENGES_AND_OPPORTUNITIES.
12 Tetra Pak, Product Development Centres – ice cream solutions. https://www.tetrapak.com/en-gb/solutions/product-innovation/product-development-centres/pdc-ice-cream-solutions
13 Tetra Pak, Tetra Pak® Extrusion Tunnel M3 – ice cream products.

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Studies link wholefruit carob ingredient to better microbiome balance and satiety

New studies suggest Csat® by Pharmactive increases SCFA production and supports satiety

Two new lab studies displayed potential for the holistic carob-based ingredient Csat®, developed by nutraceutical leaders Pharmactive Biotech Products, S.L.U., to exert a positive impact on the gut microbiome, helping to stimulate GLP-1 and support satiety.

The first study, an in vitro study published in February 2026 in the journal Bioscience, compared Csat® with a control medium and two individual carob fractions, a galactomannan-rich seed fraction and a pulp extract. Assessment of the microbial composition 24 and 48 hours later revealed that Csat® exerted the strongest effect on microbial activity, producing the highest amounts of short chain fatty acids (SCFA) acetate, propionate, and butyrate.

Csat® is a standardized carob (*Ceratonia siliqua L.*) formulation naturally rich in fibers and polyphenols, including galactomannans (≥20 %), inositols (≥5 %), and gallic acid (≥0.1 %). These compounds act synergistically to help modulate weight, improve insulin sensitivity, and reduce oxidative stress, all hallmarks of metabolic syndrome.

SCFAs are produced when the gut bacteria break down fiber, and have been shown in other research to boost satiety while protecting the gut lining. Although the galactomannan-rich fraction (GM) and the pulp extract (CPE) each induced fermentation responses, Csat® consistently generated the highest and most sustained levels of all three major SCFAs.

Csat®: the wholefruit approach

With Csat®'s whole-fruit approach, the galactomannans support primary bacterial fermenters (Bacteroides) while the pulp extract supports secondary bacterial fermenters (Anaerostipes and Blautia), the two types working in a synergistic manner, with one breaking down fibers into compounds the others utilize, leading to enhanced SCFA production while helping to maintain a balanced microbiome.

The second trial, published July 2026 in the Journal of Functional Foods, was a laboratory in vitro digestion model to test Csat® in intestinal cells. Csat® induced the strongest enteroendocrine response after gastric digestion, significantly increasing both glucagon-like peptide-1 (GLP-1) and cholecystokinin (CCK) release. GLP-1 and CCK are known as key regulators of satiety and post-prandial metabolic responses.

"Historically, in Spain during the 1930s and 1940s, when cocoa was scarce, people turned to carob for its cocoa-like flavor and aroma," relates Carlos Rodríguez, Communications Manager at Pharmactive. "Since then, carob has been considered a natural alternative to chocolate. But research into this ancient fruit reveals that it has so much more to offer. Carob is naturally rich in nutrients and compounds that support gut health, and we are now uncovering its potential in weight management, blood sugar balance, and microbiome support."



Modulation of gut microbiota is gaining increasing consumer attention as a promising strategy to support metabolic health and appetite regulation, particularly in the context of the growing prevalence of obesity and metabolic syndrome.

The same metabolic benefits have been observed in previous animal studies with Csat®. Nevertheless, its direct influence on human gut microbiota and SCFA production had not been investigated. Pharmactive is pioneering research on this link.

Csat® offers a unique whole-fruit carob composition, produced through a proprietary standardization process that harnesses key bioactive compounds from both the seed and pod. Galactomannans are enriched from the seed endosperms, while inositols and gallic acid are obtained from the pods through a green, water-based, solid–liquid extraction process.

Carob and gut-brain communication

Ongoing research recognizes the importance of the gastrointestinal tract as a central integrative organ that coordinates digestive, endocrine, and metabolic processes. It is the junction where SCFAs can interact with receptors on enteroendocrine cells in the gut, activating the satiety hormones. GLP-1 is being hailed for its role in enhancing glucose-dependent insulin secretion, delaying gastric emptying, and reducing food intake, while CCK acts via an alternate neural pathway signalling the vagus nerve to send fullness signals from the gut to the brain.

"This study represents the first evidence that standardized carob-derived compounds can modulate the intestinal flora and stimulate GLP-1 and CCK secretion in an enteroendocrine in vitro model," adds Iván Benito-Vázquez, PhD, the lead researcher of the studies. "The encouraging results call for a follow-up clinical trial to confirm whether these positive outcomes are replicated in humans."

"Csat® stands apart as a carob formulation," Benito-Vázquez continues. "Unlike isolated carob fractions, Csat® is a fully characterized and standardized formulation integrating multiple bioactive components under controlled manufacturing conditions. This compositional precision helps deliver reproducible functional outcomes."

Csat® is locally sourced from highly sustainable, resource-sparing carob trees cultivated across Spain, one of the world's leading producers of carob. It is manufactured in dedicated, state-of-the-art facilities to ensure the highest quality and purity of the final extract, while reinforcing the brand's environmental responsibility. It is a trusted, fully traceable ingredient. Csat® is certified kosher and halal and is suitable for delivery in various matrices including tablets, softgels, effervescent powders and gummies.

www.pharmactive.eu

Probi® highlights new evidence on LP299V® and iron absorption

A comprehensive review article highlighting the effects of the well-characterized probiotic strain *L. plantarum* 299v (LP299V®) for iron absorption and iron status was recently accepted for publication in the renowned journal *Frontiers in Nutrition*.

Researchers at Probi, part of Symrise Group, authored the review, which brings together evidence from 10 peer-reviewed studies, including research in populations with increased iron requirements. It examines how LP299V® may influence iron bioavailability through multiple complementary mechanisms, from supporting iron solubility and uptake to potentially influencing factors involved in iron metabolism.

Iron deficiency remains the most prevalent micronutrient deficiency worldwide, affecting an estimated 2 billion people.[1] Health effects of prolonged iron deficiency include heart irregularities, weakened immunity, and cognitive impairment. The primary source of dietary iron consumed globally is non-heme iron; however, this form is poorly absorbed. While iron replacement is standard of care, it is marked by low compliance due to unpleasant side effects like GI distress.

The review includes validated isotope studies showing relative increases in fractional non-heme iron absorption of approximately 20% to 50% across different dietary contexts. It also includes randomized controlled trials investigating the impact of LP299V® on iron status in populations including women of reproductive age, pregnant women, and female athletes with low iron stores.

The strength of this research has also received widespread industry recognition with Probi's iron absorption concept winning the Nutra Ingredients Award for Innovation in Women's Health in Europe, North America and Asia in 2025.

"Iron status depends not only on how much iron is consumed, but also on how effectively it is absorbed," said Brandy Webb, N.D., Scientific Affairs Manager at Probi. "The research reviewed provides insights into how LP299V® may support this process through several complementary mechanisms. Importantly, the evidence positions LP299V® as a bioavailability enhancer that can complement dietary iron and iron supplementation rather than replace them."

The mechanism behind iron absorption

The review explores several potential mechanisms through which LP299V® may influence non-heme iron bioavailability.

These include the production of organic acids that can lower luminal pH and support iron solubility, potential mitigation of dietary inhibitors such as phytates, and increased expression of the gene for DCYTB, the enzyme that converts ferric iron into the bioavailable ferrous form. The review notes that the evidence for effects on DMT1, the primary transporter protein, remains inconclusive.



The review also considers the relationship between LP299V®, intestinal barrier function, short-chain fatty acid production, and inflammation. These factors may contribute to the strain's effects on iron uptake and its demonstrated ability to reduce gastrointestinal side effects associated with iron replacement.

Clinical research extends beyond absorption

In a randomized, double-blind, placebo-controlled study of 326 pregnant women, LP299V® combined with folic acid, vitamin C, and low-dose iron helped preserve iron status during pregnancy. At 35 weeks, women receiving LP299V® had higher serum ferritin (16.0 vs 13.8 µg/L) and hemoglobin levels (122.5 vs 117.4 g/L) than controls. Iron deficiency was less common in the LP299V® group (59% vs 78%), as was iron deficiency anemia (7.4% vs 21%).

In a randomized controlled trial of 295 people with newly diagnosed iron deficiency anemia, adding LP299V® to oral iron therapy improved iron status and reduced gastrointestinal side effects. After three months, the LP299V® group showed greater increases in ferritin and hemoglobin, with higher serum iron and transferrin saturation. Gastrointestinal intolerance was markedly lower (13.0% vs 46.5%), as was treatment discontinuation within 30 days (3.6% vs 15.9%).

Research in female athletes with low iron stores has also explored the potential of LP299V® in addition to iron supplementation. In a 12-week randomized controlled study, the LP299V® group showed a significantly more rapid increase in serum ferritin, as well as nearly double the increase in reticulocyte hemoglobin. Additionally, the study reported a significant improvement in vigor and increases in V02 max.

A microbiome approach to iron uptake

The review supports further investigation of LP299V® as a strain-specific approach to enhancing non-heme iron bioavailability.

The authors emphasize that LP299V® should be viewed as a bioavailability enhancer rather than a source or replacement for dietary iron or iron supplements. The review also notes that responses can vary according to the dietary matrix, intervention characteristics, and individual factors, highlighting the need for further research.

The findings underscore the potential of targeted, strain-specific probiotics to influence nutrient metabolism and bioavailability beyond traditional health applications.

Read the full review, "Probiotics and iron availability: mechanisms, clinical evidence and translational applications – a comprehensive review of the probiotic strain *Lactiplantibacillus plantarum* 299v (LP299V®)," in *Frontiers in Nutrition* Frontiers | Probiotics and iron bioavailability: mechanisms, clinical evidence, and translational applications—a comprehensive review of the probiotic strain Lactiplantibacillus plantarum 299v (LP299V®).

Reference:
1 World Health Organization. (2025). Anaemia. Available online at: https://www.who.int/news-room/fact-sheets/detail/anaemia - accessed August

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PYC unveils Blue Cell Elixir, a new generation of nutricosmetics dedicated to cellular beauty

Laboratoire PYC has announced the launch of Blue Cell Elixir, a powdered nutricosmetic food supplement designed for brands looking to enhance their premium offering.

Developed and manufactured in France, the concept combines peptide science, absorption technologies and a sensory experience in a distinctive daily ritual.

Blue Cell Elixir: cellular beauty as a daily ritual

Positioned in the cellular beauty segment, Blue Cell Elixir brings together nutrients associated with key skin functions: normal collagen formation, protection of cells from oxidative stress, and cell division and specialisation.

The formula combines 500 mg of Novastyne® Glow, a new clinically evaluated advanced peptide complex, with liposomal vitamin C, zinc, niacin, biotin and vitamin A in the form of retinol. It gives brands a clear, science-led and premium communications platform.

Packaged in a stick, one 2 g dose of Blue Cell Elixir is mixed with 100 mL of water. The powder creates a blue drink, the concept's visual signature.

Novastyne® Glow, the peptide active ingredient at the heart of the formula

Developed by Novactiva, Novastyne® Glow is a peptide-amino acid complex derived from collagen. Blue Cell Elixir provides 500 mg per daily dose.

This active ingredient was designed to support the skin's natural renewal processes.

The Novastyne® Glow ingredient was evaluated in a randomised, double-blind, placebo-controlled study involving 66 volunteers. Skin parameters were measured after 30 and 60 days of supplementation at 500 mg per day.

Clinical results measured in 30 to 60 days

Instrumental measurements carried out as part of the Novastyne® Glow study revealed significant changes in several skin parameters:

- **Skin hydration**: +6.5% after 30 days and +9.1% after 60 days.
- **Skin elasticity**: +2.8% after 60 days.
- **Appearance of wrinkles after 60 days**: depth −7.9%, surface area −9.5%, length −4.4% and roughness −4.1%.
- **Firmness**: a 3.8% reduction in skin deformation after 60 days, an indicator associated with firmer, more resilient skin.

Perception questionnaires also showed that



96.9% of participants felt their skin was firmer and more radiant, while 94% felt it was more hydrated.

Two technologies to optimise active ingredient delivery

Blue Cell Elixir combines an advanced peptide complex with liposomal vitamin C, two technologies that optimise stability and availability.

- **Sustained absorption**: in an in vitro Caco-2 intestinal model, Novastyne® Glow demonstrated controlled intestinal transport for gradual absorption over time.
- **Enhanced bioavailability**: the liposomal vitamin C in Blue Cell Elixir is encapsulated in phosphatidylcholine vesicles that protect it during storage and its passage through the digestive system. A clinical study of this ingredient demonstrated approximately 30% greater total plasma exposure than conventional vitamin C, as well as significantly higher blood concentrations 10 and 24 hours after intake.

Health claims authorised in Europe

The micronutrients complement the peptide approach with well-established nutritional benefits. The formula supports the following claims:

- Vitamin C contributes to normal collagen formation for the normal function of the skin.
- Zinc, vitamin A, niacin and biotin contribute to the maintenance of normal skin.
- Vitamin C and zinc contribute to the protection of cells from oxidative stress.
- Zinc contributes to normal DNA synthesis and has a role in the process of cell division.
- Vitamin A has a role in the process of cell specialisation.
- Niacin contributes to the reduction of tiredness and fatigue.

A blue signature that turns daily intake into a beauty ritual

Evoking purity, precision and innovation, the blue colour gives Blue Cell Elixir an instantly recognisable identity. It transforms daily intake into a distinctive premium ritual.

This sensory dimension extends the scientific innovation and enables brands to build a cohesive universe around cellular beauty, from evidence to everyday use.

Vision

"Since 2010, our vision of nutricosmetics has remained consistent: combining scientific expertise with consumer insight to create effective, desirable and naturally inspired beauty-from-within solutions. Documented active ingredients, optimal dosages, clean-label formulations and an enjoyable experience: we continuously advance our expertise to offer brands ever more relevant and innovative nutricosmetic solutions." says Aurélie DE SCHUYTENEER, Marketing & Communications Manager, Laboratoire PYC

A turnkey solution, customisable for every brand

Available as a white-label solution, Blue Cell Elixir can be customised to suit each partner's positioning, target markets and regulatory requirements.

Since 2010, Laboratoire PYC has supported brands at every stage of launching their nutricosmetic innovations:

- Selection of active ingredients and nutritional formulation;
- Flavour development and sensory optimisation;
- Regulatory validation and adaptation of messaging;
- Industrial trials, manufacturing and packaging in France;
- Support from concept through to market launch.

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New solutions and innovations from VTT and Finnish food companies pave the way for profitable plant-based ingredient business

In recent years, the development of plant-based food ingredients has focused on proteins and their production processes. The RETHINK project by VTT and the Finnish food industry shows that achieving profitability in the sector requires a new way of thinking: value should be created from every stream generated in plant ingredient production, new ingredients need to be developed to suit their targeted end use, and companies and other operators must strive for closer cooperation. The project also produced several tangible inventions.

One of the key development goals for food system operators is a sustainable shift toward more plant-based diets. This shift will yield positive effects on public health, the environment and resilience of the society.

In the RETHINK project, funded by Business Finland, VTT Technical Research Centre of Finland and Finnish ingredient and food companies examined how profitable business can be built around the production of plant-based ingredients in the Finnish operating environment.

Plant-based ingredient production refers to the processing of plant raw materials, such as oats and faba beans, into various ingredients used by food manufacturers in food production.

"Globally, food production is shifting towards more local and distributed production models, as companies and societies strive to strengthen their resilience. Finland is in a great position to create new plant-based production chains and profitable business, leading to growth in the industry. We have plenty of active farmers and capacity for regional raw material production, as well as growing interest in plant-based products from the food industry and retail sector," says Emilia Nordlund, responsible leader of the project at VTT.



Complete raw material utilisation and closer collaboration will lead to profitability

Many current business models focus on plant protein production, which means a significant share of the raw material value is not maximally used. For example, peas yield protein for meat substitutes, but their carbohydrate-rich side streams often end up as animal feed with a considerably lower economic value than that of protein products. According to the experts working in RETHINK, profitable production models require creating added value from every fraction generated in ingredient production.

"It is especially critical to find the high value use cases for carbohydrate-rich fractions, as they often comprise the largest share of the raw material. We should be boldly looking for uses beyond the food sector too. In cosmetics, for example," Nordlund notes.

According to the project's experts, growth also requires closer collaboration among food system operators. Farmers, ingredient producers, food companies, investors and decisionmakers need to build shared practices that reduce supply risks and enable production to scale.

Investment-ready production models enable planning for raw material availability, quality, processing, end-use applications, and commercial routes as a unified whole.

One example of cross-company collaboration in the RETHINK project is the shared development work by Viking Malt and Valio, which produced a solution made from germinated faba bean protein granule for the plant-based and hybrid meat product market.

"Our collaboration is based on a shared goal: to maximise the value of Finnish plant-based raw materials by drawing on Finnish expertise and our best practices. Viking Malt's experience with germination and Valio's commercialisation know-how made it possible to create an entirely new kind of food product," say Susanna Kallio, Vice President, Plant-Based Business at Valio, and Xin Huang, Group R&D Manager at Viking Malt.

New inventions enable more effective use of grain and legume proteins and fibre

The new solutions developed by VTT during the project are geared towards securing locally profitable production as well as manufacturing nutritionally valuable ingredients and end products without complex processing. For example,

enzyme-assisted processing methods reduce chemical use and improve the functionality of ingredients.

"In RETHINK, we patented an entirely new way to concentrate and apply oat dietary fibre, beta-glucan. This invention makes it possible to add fibre to liquid products so that the fibre stays intact while the liquid remains pourable and without a paste-like texture," Nordlund describes.

VTT researchers also developed a new pretreatment technique for the protein separation process, which prevents the unpleasant off-flavours typical of legume-based ingredients and expands the possibilities for using legumes in food products.

New spin-off company Happy Plant Protein upscales plant protein production

Research carried out under RETHINK also helped advance the technology commercialised by VTT spin-off Happy Plant Protein from the development stage toward commercial readiness. The new technology separates protein from carbohydrates and texturises the protein using only a single process step.

"Happy Plant Protein is reshaping the market with its production process. It's also an excellent example of a company with international ambitions making use of existing food industry infrastructure and local raw materials," Nordlund says.

The company has progressed from research innovation to international commercialisation, and its technology is now being used in industrial production projects in both Latvia and the Netherlands.

Project facts

- Public 3-year co-innovation project with 5 parallel projects from the Finnish food industry
- Duration: June 2023 to August 2026
- Funded by Business Finland, totaling €3 million
- Research partner: VTT (responsible leader of the project: Emilia Nordlund)
- Industrial partners: Anora, Apetit, Fazer, Helsingin Mylly, Raisio, Valio, Viking Malt

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VTT – beyond the obvious

Unfortified plant-based dairy alternatives may fail to provide key nutrients, study finds

New research involving Queen's University Belfast finds that replacing dairy products, even partially, with unfortified plant-based alternatives may lead to a deficiency in vital nutrients.

Mandatory fortification of plant-based alternatives and other foods, including bread, could lessen the risk of deficiencies, particularly iodine deficiency.

In the first study of its kind in the United Kingdom, researchers from Queen's, in collaboration with colleagues from the University of Surrey, investigated the impact of replacing milk, yoghurt and cheese with commercially available plant-based alternatives on an individual's micronutrient intake.

The team used data, from the National Diet and Nutrition Survey, from over 3,500 individuals, aged between 18 months and 100 years old. They then used a novel modelling technique to assess the impact of replacing dairy products with plant-based alternatives on four essential micronutrients found in dairy products – iodine, calcium, riboflavin and vitamin B12.

Dr Anne Nugent from the School of Biological Sciences and Professor Jayne Woodside from the School of Medicine, Dentistry and Biomedical Sciences at Queen's, are co-authors of the study.

Dr Anne Nugent from Queen's said: "During the analysis, we first identified all foods and recipes containing dairy produce (milk, cheese and yogurt) in the national food survey for the UK, the National Diet and Nutrition Survey. Next, we conducted a series of replacement scenarios whereby we substituted the dairy present with an equal weight of plant based dairy alternatives. As the nutrient composition of dairy alternatives available on our supermarket shelves can vary, we also applied a condition to make sure that every dairy alternative we had identified in our previous market survey had an equal chance of selection. The last step was to examine the impact on dietary intakes of key nutrients following either the reduction or removal of dairy from the diet, replacing it with the dairy alternatives as above, and asking whether a series of fortification options could mitigate against any shortfalls in intake while avoid situations of excess."

Dr Katie Nicol, co-author of the study and a Research Fellow at the University of Surrey, said: "With the growing need to address environmental sustainability, many dietary recommendations are focused on plant-based diets and the reduced intake of animal products.

"With the rise in plant-based alternative foods, we need to know whether they are like-for-like replacements for the micronutrients that are found in dairy products. This is particularly important for vulnerable groups, including young children and adolescent females, who are more likely to be deficient in certain micronutrients, which could affect their overall health."

Researchers found that even modest replacements of dairy intake with plant-based dairy alternatives led to marked declines in all four micronutrients, with iodine in particular being the most sensitive to replacements. For example, replacing just 20 to 35% of dairy products with plant-based dietary alternatives, under current market fortification levels, increased iodine inadequacy among adolescent females from 54 to 65% and from 32 to 42% in women aged 19-49 years old. At full replacement, the prevalence of iodine inadequacy rose to 80% in adolescent females and 72 per cent in adolescent males.

Dr Sarah Bath, Associate Professor at the University of Surrey, and lead author said: "The UK is particularly vulnerable to iodine insufficiency due to a lack of an iodine fortification policy such as universal salt iodisation, which many other countries have.

"People may also be unaware of the importance of iodine, which is needed to make thyroid hormones to regulate our metabolism, support healthy growth and brain development. Iodine is particularly important during, pregnancy, when the requirement increases, but it is also essential prior to pregnancy to ensure that stores are optimised. People are also unaware that dairy products are a major source of iodine, particularly in the UK, and that plant-based alternatives, unless fortified, have a very low iodine content."

Researchers also examined the impact of mandatory fortification of plant-based dairy alternatives with micronutrients as a potential way to prevent deficiencies. It was found that such fortification prevented declines in micronutrient intake when dairy products were replaced, although levels of iodine remained inadequate in 59% of adolescent females. However, iodine- fortified bread was found to improve iodine intake, reducing inadequacy in adolescent females to 37%.

The results suggest that the most effective strategy in reducing iodine inadequacy is to combine mandatory fortification of plant-based dairy alternatives with iodine-fortified bread.

Dr Nicol concluded: "Nutrition policy must evolve in tandem with environmental targets however it is important that shifts towards more sustainable diets do not compromise on public health. Fortification of foods is one way that this could be achieved however government policy is needed to make this happen."

This study was published in Lancet Planetary Health.

www.qub.ac.uk/info



The copy deadline for the February 2027 issue is January 31 2027
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© Crespel&Deiters

Plant-based and protein-rich: Crespel & Deiters expands its functional ingredients portfolio

Crespel & Deiters, a refinement expert in plant-based raw materials, is launching two new high-protein crisps: Lory® IsoCrisp Fava Protein, with 50.5g protein per 100g, and Lory® IsoCrisp Wheat Protein, delivering 65.4g protein per 100g. Both allow manufacturers to boost the protein content of their recipes while maintaining a clearly defined, anticipated crunch.

Across active nutrition, snacking and confectionery, manufacturers are working to formulate on-trend, functional products that combine a high protein content with genuine sensory appeal. These two new high-protein crisps meet precisely that brief. Thanks to their extruded, stable texture and consistent particle size, both ingredients deliver a satisfying crunch and are perfect for bites, clusters or layered formats.

Lory® IsoCrisp Fava Protein is made from the fava bean, also known as the faba bean, and delivers 50.5g of protein per 100g. The round crisp, 12mm in diameter, is particularly well suited to chocolate-coated crunchy balls or bite-sized confectionery. Its smooth, round surface allows for a fine, even coating, which is both cost-effective and supports an improved, calorie-reduced nutritional profile in finished products.

Lory® IsoCrisp Wheat Protein promises 65.4g of protein per 100g and has a smaller, 4mm diameter that gives it a fine, homogeneous crunch. As a wheat-based, plant-derived alternative, it complements the existing range of milk- and whey-based crisps, making it particularly appealing for those navigating the rising price of milk protein. Lory® IsoCrisp Wheat Protein lends itself to a wide range of applications, from protein bars and porridge to cereals, muesli and confectionery.

Both crisps are easily integrated into existing recipes, giving manufacturers a more efficient and flexible route to market, whether they are looking to raise the protein content of a finished product, respond to a hike in milk protein prices or move toward plant-based, soy-free formulations.

Such flexibility addresses growing consumer demand: in a recent survey by Innova Market Insights, around 60% of consumers globally said they are actively looking to increase their protein intake but without compromising on taste or texture[1].

Crespel & Deiters, a family-owned company now in its sixth generation, produces the Lory® IsoCrisp range using extrusion technology. Drawing on more than 165 years of experience in refining renewable, plant-based raw materials, the company continues to expand its portfolio. Its in-house R&D lab and extrusion innovation hub allow Crespel & Deiters to advise manufacturers on the appropriate particle properties and formulation approach for their specific recipes.

"With the new Lory® IsoCrisp Fava and Wheat Protein crisps, we are expanding our portfolio with solutions that combine plant-based and wheat-based protein sources with real functional value for production," says Philipp Deiters, CSO Food at Crespel & Deiters. "It gives manufacturers a highly flexible tool to adapt their products to market demand quickly and without complication. And with our broad technical know-how, we support that process all the way through, from concept to market readiness."

Reference:
1 Innova Market Insights: Top Ten Trends 2026

www.crespeldeiters.com

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Send your news to Terry Prior at terryprior@innovationsfood.com

GNT secures independent verification of Product Carbon Footprint methodology for plant-based EXBERRY® colors

GNT has become one of the first food color manufacturers worldwide to have its Product Carbon Footprint (PCF) methodology independently verified in line with the ISO standard.

The PCF calculations account for the total greenhouse gas emissions produced across the entire lifecycle of each EXBERRY® coloring ingredient, including agriculture, energy use during production, and transportation.

The figures therefore give food and beverage brands access to measurable, credible information for their own sustainability reporting, decision-making, and marketing materials.

GNT creates EXBERRY® colors from non-GMO fruits, vegetables, and plants. Due to its closely managed supply chain, the company already has a corporate carbon footprint verification in line with the GHG Protocol that covers every stage of color production (scopes 1 to 3).

TÜV SÜD, a leading global supplier of testing and certification services, has now confirmed that the cradle-to-gate methodology GNT uses to calculate EXBERRY® PCF figures aligns with the requirements of ISO 14067.

Petra Thiele, Managing Director at GNT Group, said: "GNT is committed to the highest sustainability standards, and transparency and trust are a vital part of that. This important milestone now ensures our customers can rely on carbon footprint data that has been independently verified against the ISO standard."

GNT currently holds an EcoVadis Platinum award for its sustainability performance, ranking it among the top 1% of companies in the food manufacturing industry.

GNT's Senior Sustainability Specialist, Akshat Rawat, said: "We've made it our mission to produce plant-based ingredients that drive a healthier future for people and planet. We work closely with our customers on their decarbonization journeys, and our verified PCF data gives them the information they need to maximize product sustainability."

For more information about EXBERRY®, visit: **www.exberry.com**



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Planteneers introduces a new generation of plant-based foods



The new plant-based consumer generation goes its own way. This target group is all about enjoyment, and plant-based doesn't have to look like meat or milk to spark their excitement. With the new Culinary Balls from Planteneers, plant-based products get a whole new culinary identity. Instead of imitating familiar animal products, this new concept puts the interplay of flavors and textures at center stage. Up to three components – base, filling, and coating – create multilayered indulgence in a single bite. A juicy or soft base is combined with an aromatic filling and a crispy coating. Each layer delivers its own sensory experience. "The special appeal comes from the contrast – crunchy on the outside, soft on the inside, with a creamy filling" says Dr. Pia Meinlschmidt, Head of Product Management at Planteneers. "Multilayered textures are seeing continued growth in the confectionery space, and the same principle is increasingly also interesting for savory products."

Flavor Variety

The concept offers plenty of freedom in terms of flavor directions, such as a savory Mediterranean profile with dried tomatoes, black olives, and white beans, or an earthy, nutty combination of beets and walnuts. Sweet-and-savory creations can be made with pumpkin, apricot, curry, and ground ginger. Fermented flavors like pumpkin kimchi are also possible. Sesame, hemp, or chia seeds can provide extra texture in the coating. The light mousse filling contains 40% vegetables. It is freeze-thaw and bake-stable, making it suitable for a range of applications, including fillings and spreads. Another advantage of the Culinary Balls is the way they combine special sensory experiences with clean label*, high protein, and fiber.

Hybrid Kebab Balls With Spicy Vegetable Cream

The interplay of different components and textures can also be applied to hybrid products, as the Kebab Balls demonstrate. They combine beef or chicken with mushrooms and meat protein. A functional system from Planteneers consisting of pea protein and fiber provides the ideal texture. Kebab seasoning delivers authentic flavor. These hybrid Kebab Balls can be made with and without filling.

Culinary Balls can be cooked in an air fryer and eaten hot or cold. They're ideal for office lunch breaks, on the go, or at home, whether for sharing occasions, as a mini-meal or as part of modern convenience offerings. They thus meet consumers' rising expectations regarding variety and smaller portions, especially for the growing number of single-person and senior households. They also address the trend toward health-conscious eating, allowing manufacturers to highlight benefits such as clean label formulations, protein, and fiber content on packaging.

*Planteneers defines "clean label" and "without additives" as recipes that contain no declarable E-numbers and completely avoid certain additives such as preservatives, flavor enhancers or even added flavors. The recipes can contain natural flavors or spice blends.

www.planteneers.com

Roquette launches WELLENCE™ GF 1229 for improved texture, structure and quality in gluten-free bakery

Roquette, a global leader in plant-based ingredients and a pioneer in sustainable food innovation, has launched WELLENCE™ GF 1229, a new functional ingredient solution designed to improve quality and processing performance in gluten-free bakery. Suitable for staples like loaves and bread rolls as well as bagels, pizza dough, and more, WELLENCE™ GF 1229 helps manufacturers overcome some of the category's most persistent formulation challenges, keeping processing simple and costs controlled while delivering improved bread volume, finer crumb structure, and longer-lasting softness for consumers.

Raising the standard for gluten-free bread

Consumer interest in gluten-free products continues to shape the entire bakery landscape, yet poor dough texture and handling, insufficient loaf volume, uneven crumb structure, and loss of softness over time remain key challenges in gluten-free bakery. Recent research involving over 7,000 gluten-free consumers across 13 European countries has highlighted that quality and availability remain important considerations for them, reinforcing the opportunity for manufacturers to deliver better-performing products.[1] However, another recent study found that despite 45% of consumers globally expressing interest in gluten-free foods, only 10% of global bakery launches in 2025 carried a gluten-free claim.[2] This gap highlights an opportunity for manufacturers to develop gluten-free bakery products to meet rising demand, but brands need solutions that can deliver consistent performance, while keeping formulations commercially competitive.

WELLENCE™ GF 1229 is a novel cellulosic hydrocolloid solution that supports processing flexibility and delivers increased bread volume and slice height, a finer, more consistent and brighter crumb structure and softer texture retained over time. In Roquette application trials, WELLENCE™ GF 1229 increased bread volume by 23% versus the market benchmark, while loaves made with WELLENCE™ GF 1229 demonstrated approximately 50% lower instrumental hardness after 21 days, indicating a softer texture even after prolonged storage.3 Early external application trials are also providing encouraging results across various gluten-free bread recipes and customer evaluations have highlighted strong proofing and loaf expansion as well as benefits to texture, crumb structure and mixing performance.

Delivering performance without added complexity

WELLENCE™ GF 1229 offers an attractive formulation proposition. As well as a low recommended usage level, which delivered improved cost-in-use than a benchmark ingredient in trials,[3] it is easily integrated into established baking processes. For manufacturers already using cellulosic hydrocolloid solutions, WELLENCE™ GF 1229 provides a straightforward route to improved product quality, and in the case of like-for-like substitutions, no label change is needed.

Accelerating innovation in gluten-free baking

"WELLENCE™ GF 1229 shows what is possible when we put the consumer experience at the heart of formulation," said Matthieu Ramette, Innovation Project Leader at Roquette. "By



expanding our gluten-free portfolio, we are giving bakers new tools to solve some of the category's toughest challenges and to create breads that people want to come back to."

This launch also marks an important step in the continued expansion of Roquette's ingredient portfolio. It strengthens the growing WELLENCE™ portfolio of hydrocolloid solutions for gluten-free baking, giving bakers access to a broader range of solutions to support different formulation needs.

WELLENCE™ GF 1229 will be presented to the industry at Fi Europe, which takes place in Frankfurt on 17-19 November, where visitors can meet with Roquette experts to discuss the solution and its potential across gluten-free bakery applications. It has also been shortlisted for the Fi Europe 2026 Innovation Award in the 'Plant-Based Innovation' category, with the winners to be announced on 17 November.

https://www.roquette.com/food-nutrition/press-releases/new-gluten-free-bakery-solution

THIS™ puts vegan credentials front and centre with Vegetarian Society Approved Vegan Certification

Leading plant-based brand THIS™ is putting its vegan credentials firmly in the spotlight, with the Vegetarian Society Vegan Approved Certification Mark being rolled out across its range.

The certification has already launched across THIS™ Crunchy Mushroom Bites, Mushroom "Tofu" and Fillet Steak, which now proudly feature the Vegetarian Society Vegan Approved Certification Mark on pack. The mark will continue to roll out across the rest of the THIS™ range throughout the year, giving shoppers a simple way to identify products that have been independently checked against stringent vegan standards.

The move recognises the vegan community that has been central to THIS™'s success since the brand launched, while giving shoppers greater confidence when choosing vegan products in an increasingly busy and confusing plant-based aisle.

Making vegan choices easier

For shoppers, the Vegan Approved Certification Mark provides an instant visual cue that a product has passed the Vegetarian Society's stringent certification checks - removing the need to scrutinise lengthy ingredient lists.

Research shows that 75% of vegetarians and vegans actively look for a Vegetarian Society Approved Certification Mark on product packaging, and 85% would prefer to see an accreditation symbol on pack rather than having to read through an ingredient list.

For THIS™, the certification is about making its vegan credentials more visible and celebrating the community that helped shape the brand.

Said Mark Cuddigan, CEO at THIS™: "Being proudly vegan and displaying the certification mark on pack is about wearing our vegan credentials with pride and making them more visible, while continuing to create products that appeal to everyone.

"As we continue to roll the certification across our range, we're putting vegans front of mind and making it easier for shoppers to identify products they can trust, while continuing to create category-leading products that make choosing plant-based easier and more enjoyable."

A shared commitment to trusted vegan choices

The partnership brings together THIS™'s focus on innovation and accessible plant-based food with the Vegetarian Society's independent certification expertise.

Said Nina Andersen, Head of Corporate Sales at the Vegetarian Society: "We are delighted to be working with THIS™ to champion the products that have passed our stringent checks to become Vegan Approved.

"THIS™ products make plant-based eating hugely accessible for such a wide audience, which aligns perfectly with our core mission at the Vegetarian Society to create a better future for people, the planet and animals."

The Vegetarian Society's Vegan Approved Certification Mark provides an independent signal of trust at the point of purchase, helping shoppers identify products that meet recognised vegan standards quickly and confidently.

As vegan consumers continue to seek greater transparency and reassurance from the products they buy, the partnership between THIS™ and the Vegetarian Society puts independent certification where it matters most; on pack, in front of shoppers and helping to make vegan choices easier.

www.vegsoc.org



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GNT seeks U.S. FDA approval for safflower concentrate to expand plant-based yellow color options

EXBERRY® color supplier GNT has reached an important regulatory milestone after filing its safflower color additive petition with the U.S. Food and Drug Administration (FDA).

The petition seeks approval for safflower-based colors to be used across a broad range of food and beverage categories in the United States.

Safflower is an edible plant that can be used to deliver vibrant yellow shades. EXBERRY® safflower concentrate is recognized as a Coloring Food in the European Union and has a long history of use across many other parts of the world.

The U.S. petition is supported by extensive safety data and scientific research developed to support the safe use of safflower concentrate in beverages, confections, frozen desserts, dairy and non-dairy applications, cereals, soups, dressings, pickled vegetables, and other select uses.

As with all color additive petitions, review is conducted by the FDA and any outcome remains subject to the agency's determination.

Jeannette O'Brien, Vice President of Sales & Marketing at GNT USA, said: "This filing marks an important step in a long and rigorous process. Bringing a new color additive petition to this stage takes deep technical understanding, comprehensive scientific work, and careful regulatory preparation to support the safety and intended use of the color. For safflower, that has meant significant investment and nearly a decade of research and safety evaluation."

If approved, safflower concentrate would provide a valuable addition to the plant-based yellow color options available to U.S. food and beverage manufacturers.

Safflower concentrate offers numerous technical advantages, including good pH, heat, and light stability. Its water-soluble properties make it especially relevant for beverages and other applications where a clear yellow appearance is desired.

Alice Lee, Technical Marketing Manager at GNT USA, said: "Product developers need flexible color options that can support different applications, processing conditions, and shade targets. The value of safflower concentrate is not limited to yellow shades. Its water-soluble properties allow it to be used on its own or in blends with other plant-based colors to help manufacturers fine-tune a broad spectrum of bright, stable shades."

www.exberry.com

New solutions and innovations from VTT and Finnish food companies pave the way for profitable plant-based ingredient business

In recent years, the development of plant-based food ingredients has focused on proteins and their production processes. The RETHINK project by VTT and the Finnish food industry shows that achieving profitability in the sector requires a new way of thinking: value should be created from every stream generated in plant ingredient production, new ingredients need to be developed to suit their targeted end use, and companies and other operators must strive for closer cooperation. The project also produced several tangible inventions.

One of the key development goals for food system operators is a sustainable shift toward more plant-based diets. This shift will yield positive effects on public health, the environment and resilience of the society.

In the RETHINK project, funded by Business Finland, VTT Technical Research Centre of Finland and Finnish ingredient and food companies examined how profitable business can be built around the production of plant-based ingredients in the Finnish operating environment.

Plant-based ingredient production refers to the processing of plant raw materials, such as oats and faba beans, into various ingredients used by food manufacturers in food production.

"Globally, food production is shifting towards more local and distributed production models, as companies and societies strive to strengthen their resilience. Finland is in a great position to create new plant-based production chains and profitable business, leading to growth in the industry. We have plenty of active farmers and capacity for regional raw material production, as well as growing interest in plant-based products from the food industry and retail sector," says Emilia Nordlund, responsible leader of the project at VTT.

Complete raw material utilisation and closer collaboration will lead to profitability

Many current business models focus on plant protein production, which means a significant share of the raw material value is not maximally used. For example, peas yield protein for meat substitutes, but their carbohydrate-rich side streams often end up as animal feed with a considerably lower economic value than that of protein products. According to the experts working in RETHINK, profitable production models require creating added value from every fraction generated in ingredient production.

"It is especially critical to find the high value use cases for carbohydrate-rich fractions, as they often comprise the largest share of the raw material. We should be boldly looking for uses beyond the food sector too. In cosmetics, for example," Nordlund notes.

According to the project's experts, growth also requires closer collaboration among food system operators. Farmers, ingredient producers, food companies, investors and decisionmakers need to build shared practices that reduce supply risks and enable production to scale.

Investment-ready production models enable planning for raw material availability, quality, processing, end-use applications, and commercial routes as a unified whole.

One example of cross-company collaboration in the RETHINK project is the shared development work by Viking Malt and Valio, which produced a solution made from germinated faba bean protein granule for the plant-based and hybrid meat product market.

"Our collaboration is based on a shared goal: to maximise the value of Finnish plant-based raw materials by drawing on Finnish expertise and our best practices. Viking Malt's experience with germination and Valio's commercialisation know-how made it possible to create an entirely new kind of food product," say Susanna Kallio, Vice President, Plant-Based Business at Valio, and Xin Huang, Group R&D Manager at Viking Malt.

New inventions enable more effective use of grain and legume proteins and fibre

The new solutions developed by VTT during the project are geared towards securing locally profitable production as well as manufacturing nutritionally valuable ingredients and end products without complex processing. For example, enzyme-assisted processing methods reduce chemical use and improve the functionality of ingredients.

"In RETHINK, we patented an entirely new way to concentrate and apply oat dietary fibre, beta-glucan. This invention makes it possible to add fibre to liquid products so that the fibre stays intact while the liquid remains pourable and without a paste-like texture," Nordlund describes.

VTT researchers also developed a new pretreatment technique for the protein separation process, which prevents the unpleasant off-flavours typical of legume-based ingredients and expands the possibilities for using legumes in food products.

New spin-off company Happy Plant Protein upscales plant protein production

Research carried out under RETHINK also helped advance the technology commercialised by VTT spin-off Happy Plant Protein from the development stage toward commercial readiness.

The new technology separates protein from carbohydrates and texturises the protein using only a single process step.

"Happy Plant Protein is reshaping the market with its production process. It's also an excellent example of a company with international ambitions making use of existing food industry infrastructure and local raw materials," Nordlund says.

The company has progressed from research innovation to international commercialisation, and its technology is now being used in industrial production projects in both Latvia and the Netherlands.

Project facts

- Public 3-year co-innovation project with 5 parallel projects from the Finnish food industry
- Duration: June 2023 to August 2026
- Funded by Business Finland, totaling €3 million
- Research partner: VTT (responsible leader of the project: Emilia Nordlund)
- Industrial partners: Anora, Apetit, Fazer, Helsingin Mylly, Raisio, Valio, Viking Malt

www.vtt.fi

Vegetarian Society certification marks registered in the EU as global rollout continues

The Vegetarian Society has announced its Vegetarian Approved certification mark and its Vegan Approved certification mark have been registered in the EU. This is part of an ongoing global rollout of the two certification marks, with further territories expected over the coming months.

Ben Worth, Director of Development at the Vegetarian Society explained: "This announcement is the culmination of years of hard work. It all started in August 2023 when we approached selected clients to get their feedback on our decision to revamp the Vegetarian Approved and Vegan Approved logos. The feedback was positive, so we ploughed ahead, submitting UK and then worldwide registrations which are now being approved but these applications take time, years to come to fruition. In the meantime, we've worked with clients over the past three years to switch over to the new logos without avoiding expensive packaging re-runs and unnecessary wastage.

"With regards to the design, it was important to us maintain consumers' recognition of the new logo and the trust it represents; 75% of vegetarians and vegans actively look for our Vegetarian Society Approved logo on product packaging. Therefore, we decided to modernise the design rather than create a new one. Another important design consideration was for it to be flexible, to work on a variety of different packaging sizes. We think we've achieved this too."

In addition to the two modernised Vegetarian and Vegan certification schemes, the Vegetarian Society has also launched a third, the Plant-Based certification mark. This gives manufacturers the choice of which logo to displays on pack, with one set of checks and one price.

"This solved the challenge brands face when deciding how to position their vegan products. If the target market is solely vegans, use our Vegan Approved certification mark. If the target market is broader, lead with our Plant-Based certification mark which resonates with that wider audience, then put the Vegan Approved certification mark on the back to reassure vegans its suitable for them", added Ben.

As demand for clear, trusted vegetarian, vegan and plant-based labelling continues to grow, the Vegetarian Society's expanding certification portfolio gives brands a simple, credible way to reassure consumers and support confident choices at the point of purchase. With EU registration now secured and further international approvals on the horizon, the Society is strengthening the global visibility and value of its certification marks for both manufacturers and shoppers.

To find out more about the Vegetarian Society's Certification Scheme, visit **vegsoc.org/trademarks**.

ÄIO and tilk! launch award-shortlisted face cream featuring two fermentation-derived ingredients!

Estonian biotechnology company ÄIO and natural skincare brand tilk! are taking their product development partnership a step further with the launch of a new Skin Booster Face Cream containing two ÄIO fermentation-derived cosmetic ingredients: Fermira™ RedOil and ZymaLipid Complex.

The product is available from today and marks the second commercial skincare launch resulting from the collaboration between ÄIO and tilk!. Their first joint product, the Skin Booster Serum with ÄIO Bio-Fermented RedOil, reached consumers in April 2026 and the first production batch was sold out in one week.

The new cream goes one step further by combining two ingredients from ÄIO's cosmetic portfolio in one finished formulation, demonstrating how fermentation-derived lipids can move from biotechnology development into everyday skincare.

Even before its commercial launch, the Skin Booster Bio-Fermented Face Cream with ÄIO RedOil, ZymaLipid Complex and Bakuchiol was shortlisted for the European Natural Beauty Awards 2026, an international recognition programme for natural cosmetics.

The cooperation between ÄIO and tilk! began years before the first product reached the market. tilk! was among the early companies to formulate with RedOil while the ingredient itself was still under development. As tilk! founder and CEO Pille Lengi has explained, the collaboration required patience as initially only a small amount of the new oil was available for testing, and it took a few years of ingredient development, laboratory testing, documentation and formulation work before the first commercial product was ready.

For Lengi, cooperation between science and product development is fundamental when creating something genuinely new: "If you want to innovate and create something completely new, you need to work with scientists," Lengi has said.

The new face cream combines Fermira™ RedOil and ZymaLipid Complex with bakuchiol and plant oils. RedOil is a fermentation-derived active emollient containing naturally occurring carotenoids and other bioactive compounds, while ZymaLipid Complex is a high-purity fatty acid complex providing emollience, structure and sensory properties to cosmetic formulations. The result is a rich but fast-absorbing face cream designed to support hydration, skin comfort, elasticity and the skin barrier.

For ÄIO, the launch proves that ingredients originating from a biotechnology platform can progress through development, testing and formulation into products that consumers can buy. "For a biotechnology company, success is achieved when our partners can formulate with it, manufacture with it and ultimately create products that people want to use," says Dr. Nemailla Bonturi, CEO and co-founder of ÄIO.



"Our first product with tilk! showed that RedOil could make that journey. Today, we have two ÄIO ingredients together in a new commercial formulation, and the fact that the cream has already been recognised by the European Natural Beauty Awards makes all the work behind it meaningful."

The new launch comes as ÄIO is expanding the commercial reach of its cosmetics business internationally. ÄIO currently offers three commercially available fermentation-derived COSMOS and Vegan certified cosmetic ingredients: Fermira™ RedOil, ZymaLipid Complex and Encapsulated oil. These ingredients are already commercially available through a growing network of distribution partners across key markets worldwide. From Europe and the UK to India, South Korea, USA and Brazil, local distributors provide formulators, manufacturers and beauty brands with access to ÄIO ingredients, technical expertise and formulation support. This global network is helping move ÄIO's biotechnology from ingredient development into real formulations and commercial products around the world.

https://tilk.bio/

innovations IN FOOD TECHNOLOGY

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LET'S START THE CONVERSATION

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Science and standards shaping the future of ashwagandha

By Laura Collins, PhD, RD&A Director for Cognitive Health at Kerry

Consumer interest is creating new opportunities, but evidence, quality and dependable supply will define the category's future.

Ashwagandha has moved decisively into the mainstream and is now widely recognized across the global wellness market. Driven largely by a shift toward proactive wellness and science-backed botanical solutions, consumer interest continues to broaden across stress management, sleep, cognitive wellbeing, active lifestyles, and women's health, including menopause support.

Scientific investigation and testing are accelerating alongside consumer demand, giving brands the ability to develop products that respond to specific consumer needs. This innovation means that the ingredient is also reaching consumers in more accessible formats. Alongside capsules and powders, it now appears in gummies and chews.

While this versatility is creating new commercial opportunities across the health and wellness marketplace, it is also raising expectations. As the category enters more everyday products, consumers, customers and regulators will expect clearer information about composition, quality, sourcing and appropriate use.

Demand alone will not secure the category's future. Lasting growth will depend on rigorous evidence, transparent industry standards and supply chains capable of withstanding regulatory and market uncertainty.





Why standards matter

Products sharing the same botanical name do not automatically offer the same quality or safety profile. Extracts can differ substantially in plant material, extraction methods, composition, standardization and supporting evidence. Treating all extracts as interchangeable obscures those differences, creates avoidable risk for brands and makes informed choice harder for consumers.

Recent regulatory discussions in India illustrate how quickly uncertainty can travel through a global botanical supply chain when product-specific standards are lacking. When proposed restrictions emerged in early 2026, interim stays were granted by High Courts in India to allow time for evidence-based evaluation. These developments reinforce that regulatory processes must remain transparent, proportionate and grounded in science.

A mature category needs clear quality specifications, traceable sourcing, validated analytical methods, responsible communication and substantiation appropriate to each product. Traditional use provides valuable context, but

confidence today must rest on modern clinical evidence, defined conditions of use and comprehensive safety testing.

Evidence in context

Not all extracts are the same, and Sensoril™ is an example of why the evidence behind a specific extract matters. Kerry's 100% water-based root-and-leaf extract has been supported by 15 clinical trials and OECD-compliant safety studies, alongside Alkemist Assured recognition following extensive testing and method validation with Alchemist Labs.

Its formulation is deliberate: combining root and leaf via a specialized water-extraction process creates a defined bioactive profile standardized to nine withanolides. That matters because conclusions about a botanical cannot be drawn reliably from one plant part or one compound in isolation. Dose, composition, manufacturing method and the characteristics of the finished extract all shape the scientific assessment.

The same principle applies to safety. OECD-aligned toxicology testing confirmed that Sensoril™ is non-genotoxic and safe at up to 19 times the standard dose. This distinction is particularly important in discussions about withaferin A. Laboratory studies on isolated or concentrated withaferin A do not reflect whole, water-extracted ingredients. Sensoril™ maintains a tightly controlled, low withaferin A profile (<0.5%), demonstrating why an assessment must focus on the complete, standardized extract rather than single compounds.

Scientific support is only one part of customer confidence. Botanical supply chains must also contend with agricultural variability and shifting market conditions. Secure sourcing, long-term supplier relationships, strict quality controls and flexible manufacturing are therefore strategic capabilities, not simply operational safeguards.

Building long-term trust

Ashwagandha's opportunity is significant, but the industry should measure success by more than the number of new products launched. The stronger test is whether the category can earn sustained confidence through evidence that withstands scrutiny, well-defined formulation standards, supply systems that remain dependable and communication that is both clear and responsible.

Kerry is committed to advancing those principles through science-led innovation, transparent engagement and resilient supply. The larger goal is an ashwagandha market in which trust grows alongside demand—and in which science, not noise, shapes what comes next.

KERRY

www.kerry.com



ACI Group and IFF explore how 'a little less meat' could deliver a big food-to-go impact

Dr Briony Sayers and IFF application specialist Line Guldbrand to examine how advances in protein formulation could help sandwich manufacturers balance cost, sustainability and consumer expectations.

What if millions of sandwiches contained a little less meat? ACI Group and IFF will explored how partial meat substitution could help the UK food-to-go industry tackle rising costs and sustainability pressures when they joined forces at the recent British Sandwich & Food to Go Association's (BSA) technical meeting on 15 October 2026.

For food-to-go businesses, the opportunity is to reduce meat content, manage ingredient costs and support sustainability goals while retaining the familiar eating experience consumers expect. Achieving that balance requires careful consideration of ingredient functionality, nutritional composition and processing performance.

Dr Briony Sayers of ACI Group and Line Guldbrand, Application Specialist at IFF, will deliver a joint presentation entitled 'Could partial meat substitution help redefine sustainable food systems?', examining how advances in ingredient technology are making hybrid meat an increasingly practical proposition for sandwich makers and food-to-go manufacturers.

The presentation will draw on IFF's portfolio of functional protein solutions, including SUPRO®, RESPONSE® and TRUPRO®, distributed exclusively in the UK by ACI Group, to demonstrate how different protein technologies can support the development of commercially viable hybrid meat products.

Dr Briony Sayers of ACI Group said: "We have spent years asking how we persuade consumers to replace meat. Perhaps we should be asking what happens if millions of people simply eat a little less of it, through products they already know and enjoy, rather than asking them to completely change their habits.

"For sandwich makers and food-to-go manufacturers, that presents a significant opportunity. A relatively small change to an individual product might seem insignificant, but multiplied across millions of eating occasions, the potential collective impact could be substantial."

Dr Sayers and Guldbrand will explore how isolated soy proteins, soy protein concentrates, pea proteins and other functional ingredients can be used to achieve specific formulation objectives. From gelling and emulsification to water binding and meat-like bite, the presentation will examine how ingredient selection influences product structure, moisture retention and performance during processing and cooking.

The session will also examine the nutritional opportunities associated with partial meat substitution, including the potential to increase dietary fibre, manage saturated fat levels and maintain protein content and quality, depending on the ingredients selected and the final formulation.

Guldbrand said: "Modern protein solutions give manufacturers greater control over how a formulation binds water, holds its structure and delivers the bite consumers expect. By selecting the right combination of functional and textured proteins, development teams can tailor formulations to specific applications and processing requirements.

"The key is matching ingredient functionality to the product and validating performance under its actual processing conditions. A formulation that works well in one application will not necessarily deliver the same results in another, so understanding how different proteins behave is essential."

The session forms part of the BSA's technical meeting for members on 15 October 2026 at Agrial Fresh Produce Ltd. For meeting and membership information, visit sandwich.org.uk.

Developing a hybrid-meat product or reviewing an existing formulation? Speak to ACI Group's food ingredients team about protein selection, functionality and processing performance. For more information, visit **www.acigroup.biz**

Q&A with Candy Siekmann: Farming for the Future



Candy Seckman
Director of Climate Smart Ag Origination
ADM

ADM is advancing the global shift towards sustainable food production systems, with a focus on leveraging regenerative agriculture to drive value throughout the supply chain. As a leader in developing innovative solutions from nature, ADM starts by supporting farmers with solutions that improve soil health, reduce emissions and strengthen biodiversity, supporting the long-term viability of our food systems.

As the Director of Climate Smart Ag Origination, Candy Siekmann is leading the charge in regenerative agriculture across Europe, with a farmer-first approach that provides financial and technical support to cultivators adopting an outcome-based approach which protects and improves soil health, supports sustainability outcomes and creates greater value for farmers. Since the start of ADM's global re:generations™ program in the United Kingdom and Poland in 2023, Candy has supported the enrollment of more than 160,000 acres (approximately 65,000 hectares) in the program across key agricultural regions in Europe, contributing to the growing body of results and learnings highlighted in ADM's 2025 Regenerative Agriculture Report.

Candy managed ADM's European Grains and Oilseeds origination and terminal/elevator business for over ten years before the opportunity arose to lead a new initiative in regenerative agriculture through re:generations™. He is passionate about working across ADM's partnerships to secure supply chain resiliency, while supporting ADM's goals of reducing its Scope 3 emissions. Candy sees how his work through ADM plays an essential role in global sustainability innovations, and his sense of purpose comes from knowing this work supports not only the future of his family, but also the futures of generations to come.

What drew you to sustainability and regenerative agriculture? How has your background shaped your approach to working with farmers and partners across the EMEA value chain?

I first joined ADM in Hamburg, Germany, working at an oilseeds production site during my studies. I have worked across ADM's numerous departments and locations throughout my career before starting my work with regenerative agriculture. What drew me to sustainability and regenerative agriculture is the belief that agriculture can be both productive and restorative – that farmers can be at the center of solutions that holistically benefit the environment, rural communities and the food system.

Agriculture is often seen as part of the challenge when it comes to climate change and carbon emissions. But I also see that as an opportunity: when something is part of the problem, it has the potential to become an important part of the solution.

My background has shown me that meaningful change happens when we combine ambitious sustainability goals with practical, farmer-focused solutions. Working across diverse markets and global value chains taught me the importance of listening first, understanding local realities and building long-term partnerships based on trust and shared value.

My approach is to connect farmers, agribusinesses and value chain partners around opportunities that improve resilience, alongside profitability and environmental outcomes. Regenerative agriculture is not a one-size-fits-all journey, and I'm passionate about helping create pathways that work for farmers while delivering measurable impact at scale—and helping our downstream customers meet their sustainability goals while responding to growing consumer demand for more resilient and sustainable food systems.

ADM has been advancing regenerative agriculture programs globally and across EMEA. What progress or milestones have you observed, particularly when it comes to engaging and supporting farmers on the ground? What are some of the most encouraging signals of long-term adoption?

The greatest progression thus far has been seeing regenerative agriculture move from individual pilots to a scalable reality across EMEA. The program has gained momentum since starting in the UK and Poland in 2023 and has since expanded to agricultural regions across countries including Serbia, Germany and Hungary.

The most encouraging milestone is not just the number of hectares enrolled, but the level of farmer commitment. When farmers continue practices beyond the initial program, share experiences with their peers and start integrating regenerative approaches into their overall farm strategy, that's when real transformation happens. The strongest signals of long-term adoption are farmer-led innovation, measurable improvements in soil health and the growing collaboration across the value chain. It's inspiring to see farmers, customers and partners working together toward a common goal, and creating agricultural systems that are more productive, resilient and sustainable for future generations.

Farmer participation is critical to scaling regenerative practices. From your experience, how are farmer experiences and feedback shaping how these programs evolve – particularly at ADM? What challenges and opportunities do they talk about most?

Farmer feedback is at the heart of how regenerative agriculture programs evolve. What we consistently hear is that farmers want solutions that are practical, flexible and economically viable. They are looking for approaches that fit their local conditions, help manage risk and support long-term farm resilience.

These conversations help shape everything we do from program design and technical support to data collection and incentives. Farmers' experiences remind us there is no one-size-fits-all approach, and successful programs need to meet farmers where they are and provide a clear pathway for continuous improvement. The biggest challenges farmers talk about are managing the transition, navigating weather and market uncertainty as well as balancing short-term costs with long-term benefits.

At the same time, they see significant opportunities in improving soil health, strengthening resilience, reducing input dependency and creating new value through sustainable supply chains. What inspires me most is innovations that are driven by farmers themselves. When they start sharing their success with their peers and adapting practices to their own operations, regenerative agriculture becomes more than a program and part of the farm's future strategy. That farmer-led momentum is one of the strongest indicators that adoption will continue to grow and deliver lasting impact.

For example, the experiences of farmers in Hungary and Germany enrolled in ADM's re:generations™ program show how long-term relationships can turn conversations about sustainability into practical changes in the field.

In Hungary, two farmers were already exploring ways to respond to unpredictable weather, soil challenges and rising input costs when ADM's re:generations™ program provided additional technical support and incentives. One farmer has moved from reduced tillage toward no-till trials, while another has eliminated stubble cultivation across 1,400 hectares and reduced diesel consumption by 15%. In Germany, a farmer who had already committed to soil conservation before joining re:generations™ has continued building on those efforts with practices including cover crops and more diverse crop rotations

These experiences illustrate why trust and ongoing collaboration matter. When farmers can test new approaches, see how they perform under their own conditions and adapt them over time, regenerative practices can become part of how a farm operates – not simply a short-term initiative. ADM's direct connection with farmers helps create

the confidence and practical experience needed to support broader, longer-lasting adoption.

Partnerships and technology are often key enablers in this space. Can you share examples of how ADM is working with partners or leveraging new technologies to make agriculture more practical, scalable and measurable for farmers?

Partnerships and technology are essential to making regenerative agriculture work at scale, exemplified by our partnerships with Bayer and Klim. No single organization can drive this transformation alone.

Bayer's agricultural technology helps agronomists simplify data collection, track practice adoption and measure environmental outcomes more efficiently, paired with extensive experience and close connections to regional farmers. Klim, strategic tech partner providing more localized support for sustainable farmers in Germany, has offered dynamic feedback on existing technology, and supplied fresh perspectives on innovations that can support the shift from conventional to regenerative farming practices.

With Klim, we knew we needed a partner who could bring both strong technical capabilities and a deep understanding of the local farming landscape. Not only did Klim offer an advanced digital platform that allows farmers to simulate practice changes and manage data collection efficiently, but they also had a sizable in-house agronomic team to provide hands-on-support. That combination – tech-enabled tools and real agronomic guidance – is critical to how ADM structures its programs. Klim is also uniquely flexible and aligned with ADM's regional specific goals. As a dynamic, startup-style company, they adapted their operating model to fit ADM's approach for Europe. Just as importantly, they understand ADM's broader philosophy that regenerative agriculture needs to benefit farmers, not just the supply chain.

The use of these digital tools, remote sensing and data analytics have made it easier for farmers to participate, monitor progress and demonstrate the impact of regenerative practices without adding unnecessary complexity to their operations. These innovations are creating greater transparency and trust across the value chain, where farmers can receive more targeted support, customers can gain confidence in measured outcomes and partners can work together to scale impact more effectively.

However, the goal is not simply to use technology for technology's sake. It's using the right tools and partnerships to make regenerative agriculture more accessible, more rewarding and more scalable for farmers. When we combine farmer expertise with innovation and strong collaboration, we can accelerate progress toward a more resilient and sustainable agricultural system.

Looking ahead, what excites you most about the future of regenerative agriculture and farming overall in EMEA, what will it take to scale these opportunities to ensure they are both beneficial and economically viable for farmers, as well as environmentally meaningful?

What excites me most about the future of regenerative agriculture in EMEA is the growing momentum across the entire value chain. Farmers, food manufacturers and retailers, policymakers and consumers are increasingly aligned around the need for agricultural systems that are both productive and resilient.

Agricultural resilience has now become a core strategy for producers. We're moving beyond the question of why regenerative agriculture matters and focusing on how to scale it effectively. Scaling regenerative agriculture will require practical solutions, strong agronomic support, trusted partnerships and business models that reward farmers for the value they create. Economic viability is essential, and sustainability and profitability must go hand in hand.

I'm optimistic because we are seeing greater collaboration, better tools to measure outcomes and increasing demand for lower-carbon, more resilient and sustainable supply chains. When we combine farmer expertise with innovation, market incentives and long-term commitment across the value chain, we can achieve outcomes that are both environmentally meaningful and economically sustainable.

The future of agriculture is not about producing more with less, but about producing more value, building resilience, restoring natural resources and creating opportunities for future generations of farmers. That is an incredibly exciting journey, which I am proud to be a part.

Learn more about ADM's re:generations™ program in its 2026 Regenerative Agriculture Report at .**www.adm.com**

Clasado Biosciences has entered into a new distribution agreement with Globofarm International Pvt. Ltd., expanding access to its Bimuno® GOS prebiotic ingredient across India

Clasado Biosciences has entered into a new distribution agreement with Globofarm International Pvt. Ltd., expanding access to its Bimuno® GOS prebiotic ingredient across India.

The agreement brings together Clasado's expertise in gut health science with Globofarm's established market knowledge, regulatory support and distribution capabilities within the pharmaceutical and nutraceutical sectors in India.

Through the partnership, brands, manufacturers and formulators will have access to Bimuno GOS, alongside local commercial and market support. The agreement forms part of Clasado's continued international expansion and strategy to strengthen its presence across the Asia-Pacific (APAC) region.

"India is an important market within our wider international growth strategy, and partnerships with experienced local distributors are an important part of making our science and prebiotic ingredient solutions more accessible to customers around the world," says Marcelo Durante, Vice President, Sales & Marketing at Clasado Biosciences. "Globofarm brings together strong knowledge of the Indian pharmaceutical and nutraceutical landscape, together with the local capabilities needed to support customers effectively. This partnership will help us to build new opportunities for Bimuno GOS while continuing to expand our global commercial reach."

Mintel's India Gut Health Management Market Report 2025 highlights growing consumer interest in managing digestive health and identifies opportunities for prebiotic solutions within the market. The report highlights growing interest in gut health management among Indian consumers and identifies opportunities for prebiotic and probiotic innovation, including the emergence of prebiotic products in the food and beverage category.

"This is a clear indication that there is scope for prebiotic ingredients such as Bimuno GOS, a well-characterised galacto-oligosaccharide (GOS) prebiotic, to selectively support beneficial bacteria in the gut across the APAC region. Its extensive body of research, with more than 135 published studies, provides manufacturers with a strong foundation for developing products designed to support digestive health and broader functional nutrition goals," says Sebastian Nummelin, Regional Director APAC at Clasado Biosciences.

As consumer awareness of gut health grows across APAC, India is emerging as a market with significant potential for evidence-based prebiotic solutions.

"India's nutraceutical market is evolving rapidly, with manufacturers increasingly looking for well-researched ingredients that can support innovation and meet growing consumer interest in health and nutrition. By combining Clasado's expertise in prebiotic science with our local market knowledge and distribution capabilities, we can help customers explore new opportunities for gut health and bring evidence-led nutrition solutions to the Indian market," says Gronil Jain, CEO at Globofarm International Pvt. Ltd.

References:
1. Mintel. India Gut Health Management Market Report 2025. Mintel, 2025.
2. Clasado Biosciences. "New milestone for Bimuno GOS: Over 130 published studies." February 19, 2026.
3. Clasado Biosciences. "Bimuno GOS FAQs."

www.clasado.com

Protein is no longer the industry's biggest challenge – formulation is





Gareth Clark
Sales Director
ACI Group

For much of the last decade, conversations around protein focused on growth. New protein sources were identified, investment centred on developing alternative proteins, and manufacturers raced to satisfy growing consumer demand for products that supported health, wellness and more sustainable lifestyles.

Whether the discussion centred on plant-based foods, sports nutrition, functional beverages or healthy ageing, the underlying assumption was largely the same: consumers wanted more protein, and the industry's challenge was finding effective ways to deliver it.

Although the protein market has matured, headlines focus on slow growth in certain categories such as plant-based meat, which risks obscuring more significant shifts across the wider food and beverage industry: Consumers have not fallen out of love with protein. They have fallen out of love with protein products that do not taste good.

Consumers continue to prioritise protein in modern diets, but they are no longer willing to compromise on taste, texture or overall eating experience. As protein moves beyond specialist nutrition into mainstream food and beverage categories, the challenge is not to add protein but to formulate products that deliver meaningful nutrition while maintaining the sensory qualities consumers expect.

Priority protein

The nutritional argument for protein is straightforward, and consumers understand its role in promoting satiety, muscle maintenance, active lifestyles and healthy ageing. The rapid growth of GLP-1 medications is increasing consumer interest in nutrient-dense foods. As people eat smaller portions, manufacturers face greater pressure to deliver meaningful levels of protein and nutrition in more compact formats.

This development has significant implications for product development. The industry is beginning to see growing demand for products capable of delivering higher levels of protein within smaller serving sizes and more convenient consumption formats.

Functional beverages, snack bars, bakery products, meal replacement solutions and on-the-go nutrition formats are all being asked to provide greater nutritional value within compact eating occasions. Yet while nutritional expectations are increasing, consumer expectations around taste, texture and enjoyment remain unchanged. It is at this point that new product development becomes considerably more complex.

Complex formulation challenges

For many years, products high in protein had a niche positioning, and consumers were often willing to compromise on taste or texture as long as the functional benefit was clear. But as high protein moves into everyday food and beverage categories, these compromises are no longer acceptable.

Today's consumers are not comparing protein-enriched products with the sports nutrition products of a decade ago, but with the best products available in each category. A protein cookie has to compete with premium bakery products, fortified beverages must hold their own next to café-quality drinks, while high-protein snacks must deliver on overall eating pleasure. Although nutritional benefits may encourage a consumer to try a product for the first time, repeat purchase behaviour is still driven overwhelmingly by sensory experience.

No longer a differentiator

The consequence is that protein alone is no longer a differentiator. Great taste coupled with protein is. However, adding protein ingredients can introduce technical challenges that actively work against a great eating experience.

Protein is nutritionally valuable but also disruptive. In beverages, higher protein inclusion can create viscosity challenges, chalky mouthfeel, sedimentation issues and flavour imbalances. In baked goods, protein can influence structure development, moisture retention and dough softness throughout shelf life. In snacks and bars, protein interactions can affect texture stability, resulting in products that become progressively harder or less appealing over time. Plant proteins can also introduce grassy, bitter or beany flavour notes, while some dairy proteins contribute a dry mouthfeel - diminishing overall enjoyment.

These challenges become even more pronounced as manufacturers attempt to balance multiple consumer demands simultaneously. Today's consumers are looking for products that are high in protein, formulated with recognisable ingredients, commercially affordable, stable throughout shelf life and enjoyable to eat. Each of these objectives influences formulation decisions as improvements in one area can create compromises elsewhere. Protein innovation is therefore less about higher protein content but more about solving the formulation challenges in a final product.

Complete ingredient systems

As a result, the food and beverage industry is moving away from individual ingredients and

towards complete ingredient systems and formulation expertise.

Success depends on understanding how proteins interact with fibres, starches, hydrocolloids, enzymes, flavour systems and processing conditions to achieve both nutritional and sensory objectives.

The aim is to integrate protein so effectively that consumers barely notice its presence. This requires technical expertise throughout the supply chain as manufacturers look to partners that can solve formulation challenges rather than simply supplying ingredients. Future innovation will rely on advanced solutions for texture optimisation, flavour modulation, moisture management, process efficiency and shelf-life performance.

Here, high-quality ingredient suppliers such as IFF and GoodMills Innovation play an important role, offering significant application expertise and ingredient technologies to overcome sensory and technical hurdles associated with protein fortification. Whether through texture systems, flavour solutions, functional cereal ingredients or application-specific formulation support, the objective is the same: higher nutritional performance without compromising consumer acceptance.

Connecting manufacturing & formulation expertise

For ACI Group, this is changing how value is delivered to customers. Access to ingredients remains essential, but so is the ability to connect manufacturers with technical expertise, formulation support and application knowledge. To create a competitive advantage, manufacturers need partners to steer them through the growing complexity of higher nutritional ambitions.

Recent developments in the protein market



appear less like signs of slowing demand and more like evidence of a category reaching maturity. The challenge is delivering protein in ways that feel effortless, enjoyable and seamlessly integrated into everyday eating occasions.

The brands that succeed will be those that deliver better nutrition while maintaining the taste and texture consumers already enjoy. Achieving that balance requires more than ingredients alone. It requires formulation expertise.

For more information on ACI's supplier partners or to speak to a formulation expert, contact www.acigroup.com

ACI GROUP

www.acigroup.biz

Symrise opens new Scent Creative Center in Singapore to accelerate growth in Asia

Symrise has opened its new Scent Creative Center in Singapore, advancing its business and growth strategy in Asia. Designed around the way consumers experience products in everyday life, the center combines creative expertise, consumer understanding and advanced evaluation capabilities under one roof. As part of a multi phased cross-business expansion in Singapore, the center translates the ONE Symrise strategy into tangible customer value: faster collaboration and differentiated fragrance solutions around how consumers experience products in everyday life.

Building an integrated ecosystem in Asia

Taking the Symrise ecosystem to the next level, the center connects Consumer Fragrance, Fine Fragrance and Oral Care expertise while tapping into capabilities from Care & Wellness and Taste, Nutrition & Health. This ONE Symrise ecosystem combines perspectives around shared consumers and opens opportunities for multi-sensory solutions across categories. Singapore's strategic location provides an additional advantage, connecting global capabilities with customers and consumers across Southeast Asia and the wider region.

"Singapore plays a strategic role in our ambition to grow with our customers in Asia. We continue to build an integrated ecosystem that connects our global capabilities with regional understanding and outstanding local talent. The new Scent Creative Center brings ONE Symrise to life and strengthens our ability to turn insights into long-term value for customers and consumers," says Michael Friede, President Scent & Care, Symrise.

With its new Scent Creative Center, Symrise adds another chapter to its long-term investment in Singapore. Over the past ten years, the company has invested more than €80 million in the country and expanded capabilities spanning neuroscience, AI and automation. Its partnership with the Singapore Economic Development Board (EDB) has supported this development for more than a decade and has allowed Symrise to develop state of art equipment and expertise.

"Symrise's new Scent Creative Center and Global Skin Cleansing Center of Excellence reinforce Singapore's position as an innovation hub for the flavor and fragrance industry. The expansion strengthens Symrise's ability to tap Singapore's research capabilities and talent base to develop innovative, consumer-focused solutions for markets in Asia and beyond. We welcome Symrise's continued investment and look forward to supporting its next phase of growth in Singapore", explains Kelly Lai, Vice President & Head, Chemicals and Materials, Singapore Economic Development Board (EDB).

A creative center that feels like home

At the heart of fragrance development, the center places customers and consumers. Instead of conventional evaluation settings alone, dedicated spaces recreate environments in which consumers experience products. Skin cleansing facilities resemble a bathroom, hair care takes fragrance evaluation into a salon environment, while a dedicated fabric-care room recreates the laundry experience.

These real-life settings help perfumers, fragrance development managers and customers evaluate fragrance performance closer to the moment of use. A sensorial inspiration room complements the concept and encourages creative exchange and the development of distinctive signatures. Customers can collaborate with Symrise experts, integrate regional consumer insights and move promising concepts toward market faster.

"Our customers expect fragrances that connect with consumers and perform in real life. Our new Scent Creative Center brings creation, evaluation and consumer understanding together in one inspiring environment. It gives our teams and customers differentiated capabilities to co-create relevant fragrance solutions faster and turn consumer insights into competitive advantage," says Ricardo Omori, President Scent at Symrise.

www.symrise.com

We know whole grains are good for us. So why aren't we eating more of them?

Despite the strong scientific evidence for the health benefits of whole grains[1], many people across Europe still eat too little of them. And the same goes for dietary fibre: across Europe, average daily intakes fall short of recommendations.

Eating more whole grains could help close this fibre gap. So how can we encourage people to make them a bigger part of their everyday diets?

Food manufacturers can play an important role in making this happen, from improving familiar favourites to developing entirely new products.

How Can Food Companies Make Whole Grains an Everyday Choice?

Here are three ways to get started:

1. Make familiar favourites more nutritious. Start with the foods people already enjoy and incorporate whole grain ingredients into favourites such as granola, baked goods, snack bars and smoothies. This can help consumers increase their fibre intake without making major changes to their eating habits.
2. Explore opportunities in satiety and weight management. Growing interest in foods that help people feel fuller for longer creates opportunities for product development. Oat fibre can be incorporated into cereals, baked goods and beverages developed with satiety in mind.
3. Make taste and texture a priority. Choose ingredients and formulations that deliver the taste and texture consumers expect. Understanding how fibre-rich ingredients behave during processing helps create whole grain products that people genuinely enjoy eating.

At Raisio, we combine our long-standing expertise in grains and oats with our experience in developing nutritious, great-tasting foods. We help food manufacturers explore the potential of oat ingredients and find suitable solutions for different applications.

Closing the Fibre Gap

According to the European Food Safety Authority (EFSA), 25 grams of fibre a day is considered an adequate intake for normal bowel function for adults. Yet a review of dietary surveys across Europe found that average daily intakes ranged from 18 to 24 grams for men and 16 to 20 grams for women[2].

This difference between actual and recommended fibre intake is known as the fibre gap.

Whole grains are an important source of dietary fibre. Unlike refined grains, they retain all three parts of the grain: the fibre-rich bran, the nutrient-rich germ and the starchy endosperm. As a result, whole grains provide more fibre, B vitamins and minerals than refined grains.

Increasing whole grain consumption is therefore one way to help close the fibre gap and improve the nutritional quality of our diets.



Why Whole Grain Oats Deserve a Closer Look

Whole grain oats are a nutritional powerhouse. They're rich in fibre, including beta-glucan, a type of soluble fibre with well-documented health benefits[3].

According to analyses conducted by Raisio, 100 grams of whole grain oats contain approximately 11 grams of fibre, including 4.6 grams of beta-glucan. Whole grain oats also provide protein, B vitamins and minerals.

Oats also have a practical advantage: they are commonly used in their whole grain form. Whether as oat flakes, cut oat kernels or whole grain oat flour, these ingredients retain the nutritional benefits of the whole grain. This makes oats a versatile ingredient for a wide range of food applications.

How Oat Beta-Glucan Supports Satiety

One of the most interesting benefits of oat fibre is its potential to help us feel fuller for longer. This is particularly relevant as consumers show growing interest in foods that support satiety and weight management.

The beta-glucan in oats forms a thick, gel-like substance in the digestive tract, slowing stomach emptying and absorption of nutrients. This can contribute to a longer-lasting feeling of fullness after meals.

Studies have shown that meals containing oat fibre can lead to greater feelings of fullness and reduced hunger compared with meals without it[4].

Feeling satisfied after a meal can also make it easier to manage hunger between meals and avoid unnecessary snacking. This is particularly interesting from a weight management perspective, where appetite control plays an important role.

With more consumers looking for foods that keep them feeling full for longer, oat fibre has plenty to offer.

Food manufacturers can tap into this growing demand by incorporating oat fibre into products ranging from breakfast cereals and baked goods to beverages.

Making Healthy Choices More Tempting

The nutritional benefits of whole grains are clear, but knowing that a food is good for us doesn't necessarily mean we'll choose it.

Taste, texture, familiarity and convenience all influence what we put in our shopping baskets and, more importantly, which products we keep coming back to.

The key is to create whole grain products that taste great, are convenient and feel familiar to consumers, so that choosing whole grains becomes an easy and enjoyable part of everyday eating.

Oats are a great ingredient for this. Their mild flavour makes them easy to incorporate into different foods. And with a wide range of oat ingredients available, there are plenty of possibilities for creating nutritious, great-tasting products.

Working with fibre-rich ingredients also requires technical expertise, as fibre can affect a product's texture and how it behaves during processing. Understanding these properties helps manufacturers get the formulation right and create whole grain products that consumers genuinely enjoy eating.

Sometimes eating more whole grains can be as simple as finding them in more of the foods we already love.

References:

1 European Commission, Knowledge for Policy: Whole grain
2 European Food Information Council (EUFIC): Recommended daily intake of fibre and fibre-rich foods
3 Commission Regulation (EU) No 432/2012
4 Nutrition Reviews, Volume 84, Issue 1, January 2026, Pages 47–68, https://academic.oup.com/nutritionreviews/article/84/1/47/8196856

RAISIO

www.raisio.com



Reinventing recovery: HOW DAIRY SOLUTIONS SUPPORT THE NEW ERA OF EVERYDAY WELLBEING

Recovery is moving beyond the sports nutrition aisle. As consumers look for convenient ways to support energy, resilience and wellbeing throughout the day, beverage manufacturers have an opportunity to rethink what a recovery product can deliver. Valio's latest recovery drink application shows how dairy can bring together high-quality protein, carbohydrates, digestive comfort and an enjoyable sensory experience in one solution.

Recovery is becoming an everyday need

For a long time, recovery nutrition had a clear context. It belonged to the gym bag, the sports field or the hours after an intense workout. Protein was at the center of the conversation, and the target consumer was easy to picture: someone training hard and deliberately looking for sports nutrition.

That picture is becoming broader. Today, the idea of recovery can be relevant in many more situations. An intense training session is still one of them, but so are busy working days, active routines and moments when people simply want to restore energy and feel ready for what comes next.

This reflects a broader shift towards more individual, occasion-based nutrition. Consumers increasingly look for products that fit everyday routines while delivering clear nutritional value, and convenient drinkable formats fit naturally into busy lifestyles.

For manufacturers, this opens up an interesting space between traditional sports nutrition and mainstream food and beverages. Recovery no longer needs to belong only in the gym bag: it can become part of everyday active living, bringing together energy, nutrition, convenience and wellbeing.

Broader relevance, higher expectations

A product designed for everyday use must offer more than just a functional claim. It needs to naturally fit into daily routines. It needs to be easy to understand. And most importantly, it needs to taste good. Consumers nowadays expect several benefits from one product rather than a solution built around a single nutritional attribute.

This is where dairy solutions have a natural advantage. Milk already brings together several nutritional components in one familiar raw material. High-quality protein is perhaps the most obvious, but it is not the only component that can play a role in recovery. Looking more closely at milk carbohydrates opens a different way to think about the category, and about what a dairy-based recovery drink can deliver.

Beyond protein: recovery also requires energy

Protein remains fundamental to recovery nutrition. Milk protein provides all nine essential amino acids and supports the growth and maintenance of muscle. This makes dairy protein highly relevant to active nutrition and explains why high protein products continue to expand far beyond conventional sports supplements into drinks, snacks and everyday foods.

Muscle recovery is, however, only one part of what happens after physical activity. The body also needs to replenish the energy used during exercise. This means that alongside protein, carbohydrates matter. For product developers, the opportunity is therefore not simply to maximise protein content, but to create a more balanced nutritional proposition that can support both muscle recovery and energy replenishment.

That changes the formulation question. Many conventional recovery beverages combine a protein source with separately added carbohydrates such as glucose, dextrose or maltodextrin. These ingredients can provide the energy component of the formulation, while protein delivers the muscle-related benefit.

Valio wanted to explore whether dairy itself could do more, and therefore looked at a familiar dairy component from a different perspective: lactose. When hydrolysed, lactose breaks down into glucose and galactose, creating an opportunity to use milk sugar as a functional part of recovery nutrition rather than simply as part of dairy's carbohydrate content.

This raises an interesting question: can dairy provide not only high-quality protein, but also a meaningful carbohydrate solution for recovery?

A different role for milk sugar

Glucose is familiar territory in sports and recovery nutrition. Following consumption, it can be used to replenish energy stores, including glycogen in muscle. Galactose adds another dimension. It is primarily metabolised in the liver, where it can contribute to liver energy stores and be used for energy. Hydrolysed lactose naturally provides both.

For manufacturers, this creates an interesting formulation opportunity. Rather than building the carbohydrate side of a recovery beverage entirely through added glucose or maltodextrin, hydrolysed milk sugar can provide glucose and galactose as part of the dairy ingredient itself. This was one of the starting points for Valio's Recovery Drink application.

The concept brings together hydrolysed milk sugar and high-quality milk protein through Valio Eila® PRO specialty powder. The aim was to create a dairy-based beverage with a balanced nutritional profile for recovery while also addressing other needs that increasingly matter in functional food and beverage innovation.

One of those is digestive comfort. The formulation is lactose free, making the concept relevant to consumers who look for gut-friendly dairy nutrition. This is particularly important as active nutrition becomes more mainstream: products designed for broader everyday use need to respond to a wider range of consumer preferences and needs.

Another consideration is sensory quality. Functional products cannot rely on nutrition alone. If recovery is to expand from a specialist sports occasion into everyday wellbeing, taste and texture become even more important. A product that consumers might choose regularly has to deliver an enjoyable experience alongside its nutritional functionality.

This is one reason dairy is particularly interesting as a platform for functional beverage innovation. It can combine nutrition with a familiar, pleasant sensory profile rather than requiring manufacturers to choose between functionality and enjoyment.

Bringing the idea to life

Valio's Recovery Drink application was developed to demonstrate this potential in a tangible product. The concept combines protein and carbohydrates in a balanced 1:1 ratio. Its carbohydrate profile includes glucose and galactose derived from hydrolysed lactose, while its high-quality milk protein supports muscle recovery.

The beverage is also lactose free and has no added sugar. Valio Eila® PRO specialty powder contributes natural sweetness alongside its nutritional role, helping create a smooth, pleasant dairy drink without building the formulation around multiple separate functional ingredients.

The result brings together high-quality protein, energy replenishment, digestive comfort and an enjoyable sensory experience in one format. This reflects a broader shift towards multi-benefit nutrition, where differentiation increasingly comes from the combination of benefits rather than protein content alone.

Recovery provides a natural example. A consumer may be interested in muscle support, but also want to restore energy. They may value lactose free products for digestive wellness. They may look for a convenient format that fits easily into the day. And they are unlikely to compromise indefinitely on taste just because a product is functional.

A recovery beverage that addresses several of these expectations at the same time has the potential to reach beyond a narrow performance audience. That is also why the drink format is particularly relevant. Valio's consumer insight has identified "drinks for every need" as an emerging food topic, reflecting the increasing popularity of drinkable meals and snacks as convenient ways to support modern lifestyles. Recovery fits naturally into that behaviour: a ready-to-drink format can make nutrition easy to consume at the moment it is needed.

Putting the concept to the test

For Valio, developing the formulation was only one part of the process. The next question was whether the carbohydrate approach could perform in practice. Valio therefore conducted a pilot study comparing a recovery beverage based on Valio Eila® PRO specialty powder containing hydrolysed lactose with a conventional commercial milk-based recovery drink.

The study looked at post-exercise recovery of strength and endurance and the outcome was encouraging: no significant differences were observed between the study products in the recovery measures evaluated. In other words, the hydrolysed lactose-based recovery drink performed comparably to the conventional recovery beverage used as the reference.

The finding is relevant for product development because it supports the idea that hydrolysed lactose can play a meaningful role as the carbohydrate component of a recovery formulation. The significance is not that one carbohydrate source needs to replace every other option. Rather, it demonstrates another route available to manufacturers designing recovery products – one that uses the nutritional components of dairy more comprehensively.

The study also supports a broader formulation principle: dairy ingredients should be considered as complete systems. One ingredient can influence protein content, carbohydrate composition, sweetness, digestive properties, taste and texture simultaneously – helping manufacturers add value without unnecessary formulation complexity.

More benefits, less complexity

For manufacturers, a key strength of the Recovery Drink concept is that several benefits can be built into the dairy-based formulation. Conventional recovery beverages may use a dairy protein ingredient alongside separately added carbohydrate sources. In the Valio concept, Valio Eila® PRO specialty powder contributes both high-quality milk protein and carbohydrates from hydrolysed lactose. That creates the potential to achieve several formulation goals through the same dairy solution.



Package image modified with AI

By combining high-quality milk protein with carbohydrates from hydrolysed lactose, the concept supports several formulation goals at once: high protein, carbohydrate replenishment, lactose free positioning and sweetness without added sugar. Valio's broader market work points to the continued strength of protein while also highlighting growing interest in more individualised nutrition, convenient drinkable formats and products that combine several benefits in one proposition.

For manufacturers, however, "more benefits" cannot simply mean "more ingredients". Every additional component can affect cost, processing, taste, texture, labelling and supply chain complexity. The more functionality that can be built into the core formulation, the simpler and more efficient product development can become. This is where dairy science and application expertise come together.

Understanding what an ingredient contains is one thing. Understanding how its different components can be used to deliver nutritional, sensory and technical value simultaneously is another. The Recovery Drink application is therefore less about a single finished beverage and more about demonstrating a formulation principle: use the full potential of dairy to create products with multiple relevant benefits.

From sports recovery to everyday wellbeing

The biggest opportunity may ultimately lie in how the recovery occasion itself is redefined. Traditional sports nutrition remains important, and consumers with demanding training routines will continue to look for targeted solutions. But active nutrition is expanding towards a much broader mainstream audience. Valio's own category work identifies a need for product portfolios that serve both traditional sports users and active nutrition consumers looking for targeted, convenient nutrition in everyday life.

That means manufacturers can begin asking different questions. What might recovery look like for someone balancing work, exercise and family life? Could a functional dairy beverage become part of the afternoon routine rather than only the post-gym routine? Could consumers think about replenishing energy and supporting recovery after an active day in the same way they currently think about protein after exercise?

Not every consumer will use the language of sports nutrition, but many recognise the need to recharge and recover. That creates room for more approachable concepts built around everyday occasions rather than traditional sports positioning.

Dairy provides a strong foundation for this, combining nutritional value, carbohydrate functionality, digestive comfort and familiar sensory qualities in one platform. Valio's Recovery Drink application brings those elements together to show one possible direction for the category.

But the bigger idea goes beyond a single application. Recovery is becoming a broader wellbeing opportunity, and that gives manufacturers space to innovate at the intersection of active nutrition, convenience and everyday food culture. The winners will be products that make functional nutrition feel useful without feeling complicated, and relevant without being restricted to a specialist audience.

For dairy, that opens an interesting new chapter. Protein may have brought milk firmly into the active nutrition conversation. The next step is to show what the rest of dairy can do.

That is the opportunity behind reinventing recovery: using dairy solutions not simply to add protein, but to create balanced, enjoyable products designed for the realities of everyday wellbeing.

www.valio.com

Ennolys by Lesaffre is expanding its contract manufacturing services to accelerate and mitigate the risks associated with the industrialization of sustainable innovations

Ennolys, the Lesaffre subsidiary specializing in biotechnology and process industrialization, is launching an expanded range of CDMO[1] services focused on fermentation, DSP (Downstream Processing), and drying. This development puts Ennolys' industrial expertise at the service of innovative biotechnology companies.

With more than 30 years of expertise in industrial fermentation, Ennolys is strengthening its position as a key partner in supporting its clients' biotechnology projects, from bioprocess development through to commercial production.

This new offer covers fermentation, purification (DSP), and drying processes, with industrial equipment and a dedicated team to optimize performance, ensure a smooth scale-up, and accelerate time to market.

Ennolys' teams produce a wide range of microorganisms and metabolites derived from fermentation—such as enzymes, probiotics, postbiotics, proteins, peptides, and other molecules of interest—for the food, cosmetics, nutraceuticals, agricultural, and animal nutrition markets…

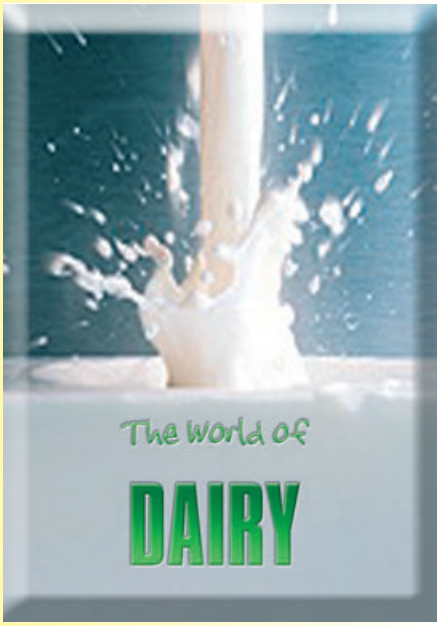
With this new offer, Ennolys now provides comprehensive, customized support, drawing on proven fermentation processes and cutting-edge technologies. With a dedicated team of experts, Ennolys is involved in every stage of the project—from laboratory R&D to scale-up to industrial production in large-capacity fermenters—optimizing yields, quality, and reproducibility. This flexible and collaborative approach enables manufacturers to reduce development costs, accelerate time-to-market, and secure their supply chain.

"Expanding our CDMO service offer provides a concrete solution to the challenges facing the biotechnology industry. Thanks to our long-standing expertise in fermentation and our capabilities in DSP and drying, we support our customers from the laboratory stage through to industrial production, enabling them to accelerate and secure their development. Together, we turn their needs into sustainable industrial success." – says Jean de Lataillade, CEO of Ennolys by Lesaffre.

"This expansion of Ennolys' offer illustrates Lesaffre's commitment to putting its fermentation expertise at the service of innovators. It will help foster the development of sustainable solutions that address the major challenges of tomorrow."– Brice-Audren Riché, Lesaffre CEO.

For Lesaffre, this initiative is part of a broader effort to forge new partnerships within the biotech ecosystem. Ennolys' CDMO offer is a concrete example of how Lesaffre's expertise in fermentation can help address real needs through an approach that is at once industrial, scientific, and environmentally responsible.

www.lesaffre.com



Kensing unveils cream cheese enriched with sunflower sterols

Kensing, LLC is introducing a prototype formulation of light cream cheese enriched with Sunvasterol™ EST, its sunflower-sourced plant sterol formulation, giving the household staple a wellness upgrade by adding heart health benefits. Kensing invites visitors to taste cardio functional cream cheese at Fi Europe on November 17-19 in Frankfurt at booth #30H38.

Derived exclusively from sunflower seeds, Sunvasterol™ EST offers phytosterols in a clean-label, non-GMO composition designed for supplement applications as well as to enrich a range of everyday foods. It also allows for allergen-free by origin labeling.



Sunflower powered to reduce cholesterol

Sunvasterol™ EST delivers clinically supported cholesterol-lowering benefits of plant sterols. Plant sterols are natural lipid components found in seeds, grains, nuts, and legumes. Structurally similar to cholesterol, they are known for lowering blood LDL-cholesterol when added to the diet. This effect is supported by EFSA-approved health claims at daily intake of 1.5–3.0g. Sunflower seeds are one of the richest seed-based sources of these cholesterol-lowering compounds.

Last year, Kensing received EFSA novel food exclusivity for Sunvasterol™. The EU authorization allows for an expanded phytosterol specification, permitting a higher proportion of naturally occurring minor sterols (between 3% and 7%). This grants better alignment with the natural composition of Kensing's sunflower sterols and reduces the need for any unnecessary processing.

Kensing's proprietary formulation is composed of naturally derived concentrated phytosterols (primarily beta-sitosterol, stigmasterol, and campesterol), esterified with

fatty acids from sunflower oil. This renders the ingredient more fat-soluble, enabling its smooth integration into fat-containing foods such as cream cheese, margarine, milk products, salad dressings, as well as food supplements.

The light cream cheese prototype retains the classic creamy texture and mild, neutral flavor consumers expect from the popular spread. The esterified Sunvasterol™ EST disperses evenly into the fat phase, helping avoid the grainy or waxy mouthfeel that can be associated with free sterols. The result is a functional take on an everyday favorite that fits breakfast or snack time with the same indulgent sensory experience.

"We're opening new possibilities for making phytosterols part of consumers' daily wellness routines by incorporating them into everyday dietary staples, from spreads to yogurts," declares Alessio Tagliaferri, VP Global Business Development & Marketing for Kensing. "Consuming plant sterols with meals is generally recommended to maximize their LDL cholesterol-lowering benefits, as they work in the digestive tract by reducing cholesterol absorption. Integrating them into foods commonly enjoyed at mealtimes therefore makes both prac tical and nutritional sense."

Sunvasterol™ EST accounts for 6.7% of the cream cheese formulation. One 25 g serving provides approximately 1 g of plant sterols. Two servings a day provide the recommended 1.5–2.4 g/day plant sterols intake associated with a 7–10% reduction in LDL cholesterol over 2–3 weeks.

www.kensingsolutions.com

Barry Callebaut launches first low carbon dairy partnership with Arla Foods

Barry Callebaut recently announced the launch of its first dairy partnership to reduce impact on climate emissions with Arla Foods, through the *FarmAhead™ Customer Partnership program. This three-year collaboration marks an important step in the decarbonization of Barry Callebaut's dairy supply chain, starting with skimmed milk powder sourced from the UK.

Through this partnership, Arla will provide annual primary carbon footprint data linked to the dairy volumes supplied to Barry Callebaut at farm level. This will support the company's Scope 3 emissions reduction journey and accelerate the roll-out of decarbonization initiatives on dairy farms in the shared supply chain.

The collaboration marks an important milestone in advancing Barry Callebaut's Net Zero roadmap and reinforces its efforts to develop scalable low-carbon dairy solutions with strategic suppliers. It also contributes to Barry Callebaut's broader Net Zero Chocolate Solutions, which enable customers to reduce the end-to-end footprint of their cocoa and chocolate products through targeted partnerships.

Decarbonizing dairy is essential to reducing our carbon footprint, and this partnership is a testament to our commitment to driving meaningful progress on our Net Zero journey. By working closely with partners like Arla, we can increase transparency in our dairy supply chain and accelerate the development of scalable decarbonization initiatives that support our Scope 3 reduction targets and contribute to ongoing sustainability efforts in the food chain.

Tilmann Silber, Head of Net Zero at Barry Callebaut commented: This partnership represents the interconnectedness of sustainability and sourcing working together at Barry Callebaut. The partnership demonstrates that decarbonization is not only about carbon data, but about building long-term partnerships capable of driving change at farm level.

Dairy is one of the most complex categories to reduce carbon footprint and meaningful progress requires close collaboration across the entire value chain. What makes this initiative particularly important is the ability to connect climate ambition with concrete action at farm level through long-term engagement with suppliers and farmers. This collaboration with Arla represents an important step in developing credible and measurable lower-carbon dairy sourcing solutions for the future.

Gabriela Aramayo, Responsible Sourcing Lead Dairy at Barry Callebaut commented: We are pleased to work closely together with Barry Callebaut on our shared goal to reduce emissions from dairy. Through the partnership, we can further support the actions our farmer owners are taking to produce high-quality dairy as efficiently as possible while providing valuable data for Barry Callebaut's reporting purposes. It is a clear example of two ambitious companies living up to their responsibility and recognising the importance of collaboration.

Cathrine Konge Varming, Senior Director Sustainability Innovation & Development at Arla commented: Key principles of the partnership include primary farm-level carbon footprint reporting, alignment with recognized greenhouse gas (GHG) and dairy carbon methodologies, and the use of incentive payments for farmers that apply practices that reduce emissions.

This strategic partnership between Barry Callebaut and Arla marks an important milestone in Barry Callebaut's Net Zero roadmap. As the company's first partnership focused on reducing on-farm emissions and incentivizing farmers in dairy, the initiative lays a strong foundation for future collaborations and reinforces Barry Callebaut's commitment to decarbonizing its value chain, thereby also supporting its customers to achieve their own climate targets.

*FarmAhead™ is a registered trademark owned by Arla Foods amba.

www.barry-xcallebaut.com
www.arlafoods.com

Emmi invests in the Suhr site, expanding 100 years of dairy tradition

The roots of the Suhr site go back to 1917, when the Suhr Butterzentrale was founded here. What started out as a headquarters for butter production has developed over the course of more than a century into one of the most important milk processing sites in Switzerland. This story has been continued for 20 years under the umbrella of Mittelland Molkerei Suhr. Emmi celebrated this anniversary on 28 August together with guests from the worlds of politics, agriculture, trade and the media. At the same time, two important investments for the future were inaugurated – the new West building and the new PET plant.

The Suhr site has always shaped what Emmi is all about: high-quality natural products for every day – produced with care, expertise and passion for Switzerland. More than 400 dedicated Emmi employees help produce milk, cream, mixed milk drinks, speciality milks and butter every day in Suhr. Foods that for many people are part of their everyday life and have to meet the highest standards of quality and reliability.

Over the years, the site has developed from a traditional production facility into a versatile competence centre with a broad portfolio. With the new West building, Emmi is now making targeted investments in the future of the site and creating space for new technologies, processes and product solutions. The investment will make it possible to further develop the site and provide answers to future requirements from customers and consumers. A key component of this further development is the new PET plant – and at the same time a next logical step for Emmi in the area of sustainable packaging solutions.

Pioneering achievement by Emmi in the area of PET

Emmi was the first processor of dairy products in Switzerland to introduce white PET bottles as a packaging solution in 2024 – thus taking an important step towards recyclable packaging. This makes it possible to gradually switch packaging of dairy products to PET, thus using a recycling solution established in Switzerland. The Mittelland Molkerei Suhr brings to everyday life in Switzerland what began in Ostermundigen with Emmi Energy Milk and Emmi Caffè Latte Mr. Huge: with the new PET plant, Emmi is now also filling UHT and PAST milk in PET, with the changeover taking place gradually.

Functioning cycles can only emerge through collaboration across the entire value chain. Partners from recycling, PET Recycling Switzerland and trading partners play a crucial role here.

As part of the anniversary event, the development of the site was highlighted and a look into the future was provided. A panel discussion focussed on consistent alignment with consumer needs, the importance of partnership-based collaboration and responsibility along the value chain. Afterwards, the guests were able to experience the site on guided tours and gain an exclusive insight into production, processes and new technologies.

www.emmi.com

IFF identifies the life-stage insights shaping dairy's future

IFF — a global leader in flavors, fragrances and health and biosciences, published its latest resource, Dear Dairy: The Life Stages Guide. This strategic guide reveals how manufacturers can unlock new opportunities by aligning dairy innovation with consumers' evolving needs throughout life.

"Dairy is one of the few categories that evolves alongside consumers throughout their lives," said Rogerio de Almeida Prado, vice president of Global Dairy & BBC (Bakery, Bars and Confectionery) for IFF Taste. "Over time, expectations change. What builds trust in childhood may need to support identity, convenience or vitality later in life. The next wave of dairy innovation will be defined not by a single trend, ingredient or claim, but by an understanding of what consumers need at different times of their lives — and why."

Drawing on insights from Panoptic™, IFF's proprietary trend and foresight capability, the guide explores how consumer priorities, lifestyles and purchasing behaviors shape dairy choices, from childhood through healthy aging. The guide identifies four key life stages, each defined by distinct consumer expectations and opportunities for innovation:

• **Taste of Nourishment**

Children connect with dairy through taste, texture and enjoyment, while caregivers prioritize balanced nutrition. Success lies in delivering both sensory appeal and nutritional confidence, such as products that provide reduced sugar without compromising creamy texture or great taste.

• **Taste of Growth**

During adolescence and young adulthood, dairy shifts from being given to being chosen. Products become a reflection of identity, lifestyle and values. Protein, energy, gut health and better-for-you benefits may capture attention, but lasting relevance depends on delivering them through products that feel authentic, aspirational and genuinely worth choosing.

• **Taste of Balance**

As responsibilities grow, consumers seek products that simplify healthy choices and fit seamlessly into their daily routines. Successful dairy products combine functional benefits, convenience and enjoyable sensory experiences.

• **Taste of Comfort**

As healthy aging becomes a greater priority, dairy remains an important source of nutrition while also supporting vitality, mobility and quality of life. Opportunities exist to deliver these benefits through enjoyable products that feel empowering rather than clinical.


© IFF

Through its consumer insights, taste expertise, bioscience leadership and end-to-end innovation capabilities, IFF helps manufacturers translate changing consumer needs into dairy products that delight consumers and drive growth. The company combines strengths in flavor creation, dairy cultures, probiotics, fermentation technologies and formulation expertise to help manufacturers deliver differentiated dairy products across every stage of life.

The guide also highlights concept innovations that demonstrate how IFF solutions can help manufacturers address the needs of each life stage:

- Yogipop, Taste of Nourishment stage: A spoonable yogurt that uses IFF's FLAVORFIT™ solutions to maintain a delicious strawberry taste and creamy texture in reduced-sugar products, delivering an enjoyable experience that appeals to children.
- Sunrise Protein, Taste of Growth stage: A refreshing high-protein beverage that leverages IFF's RE-IMAGINE and RE-MASTER platforms to overcome bitterness and improve enjoyment.
- Strawbana, Taste of Balance stage: A powdered smoothie sachet that uses IFF TASTE DESIGN™ to create a convenient, protein-rich beverage experience.
- High-protein Vanilla Shake, Taste of Comfort stage: A ready-to-drink shake that delivers high-protein and an indulgent vanilla taste through IFF natural vanilla flavors and other IFF TASTE DESIGN™ solutions.

www.iff.com

Visit our NEWS website at www.innovationsfood.com

Send your Dairy news to the Innovations newsdesk Email: terryprior@innovationsfood.com



Sensient Flavors & Extracts introduces Amberferm® Grow 288 & 289 for dairy culture production

Sensient Flavors & Extracts has introduced Amberferm® Grow 288 and 289, two yeast-based fermentation technologies developed specifically for dairy culture production. Designed to increase fermentation yield and support product innovation, the new solutions enable manufacturers to increase production output to meet dairy market demand without the need for capital investment.

Amberferm Grow 288 and 289 are designed for use across a range of dairy culture strains and have demonstrated improved fermentation yield and culture activity. Because different bacterial strains have distinct nutritional requirements, the performance of Amberferm Grow 288 and 289 provide dairy culture manufacturers with options to address the specific needs of the cultures they produce. In some cases, Sensient has seen the technology double the yield achieved with an industry-standard fermentation nutrient.

"We want to help our customers do more with less," says Bhakti Pande, general manager of Sensient BioNutrients. "The new Amberferm Grow products provide a powerful solution for dairy culture manufacturers, especially in context of the current consumer demand for dairy products."

Amberferm Grow 288 & 289 deliver benefits across three key areas:

1 Fermentation Yield

When used as fermentation nutrients in dairy culture production, Amberferm Grow 288 and 289 consistently deliver significant improvements in packed cell volume yield, enabling manufacturers to produce more culture from existing fermentation capacity. In some cases, Sensient has seen the technology double the yield achieved in an industry-standard fermentation nutrient.

2 Product Activity

The technology has also demonstrated improved acidification activity in dairy cultures, enabling manufacturers to enhance the performance and competitiveness of their products.

3 Downstream Application

The Amberferm Grow nutrients can support product optimization and new product development. Manufacturers can use Amberferm Grow 288 and 289 to optimize fermentation yields while maintaining culture performance or to develop new products for differentiated applications.

"Our goal was to develop more than just another yeast extract. We wanted to create a fermentation ingredient designed specifically around the needs of dairy culture manufacturers," says Gayathri Venkat, senior innovation manager at Sensient BioNutrients. "This technology has the potential to help our customers optimize production without compromising product quality and performance."

Amberferm Grow 288 and 289 are available in North America and Europe. For more information, please visit **https://www.sensientbionutrients.com/** or contact jen.lyons@sensient.com

Arla Foods Ingredients reduces gas emissions through investment in Videbæk

An 8 million euro investment at the Danmark Protein plant in Videbæk will reduce natural gas consumption by the equivalent of the annual heating demand of more than 900 households. With an additional planned investment in Videbæk, that figure will double.

Videbæk – Arla Foods Ingredients is taking a major step towards reducing its CO_2 emissions on dairy level. A newly completed investment in a new heating system for Production Tower 4 at the Danmark Protein plant in Videbæk will deliver annual savings of 2,500 tonnes of CO_2, equivalent to the annual heating consumption of more than 900 households using natural gas.

In Videbæk, whey is processed into a range of ingredient and protein products. As part of the project, the tower is being converted from operating with a gas heater to being able to switch between heat from the plant's existing steam system and a new electric heater. This will reduce the use of natural gas and allow renewable electricity to take over part of the operation. Calculations show that Tower 4 will be able to operate 100% on renewable electricity for 23% of the time.

"This is one of those investments where we simultaneously improve operational reliability, strengthen security of supply and reduce our climate impact. The fact that we can achieve such a large reduction through a single solution highlights the potential of electrifying our production," says Mogens Bøgh Pedersen, Director of the Danmark Protein plant.

Electrification significantly reduces CO_2 emissions

By being able to switch between the existing steam system and electricity, Arla Foods Ingredients creates a strong financial business case while also supporting the need for flexible consumption in the Danish power grid. This allows Arla Foods Ingredients to use electricity when wind and solar power drive prices down, while reducing electricity consumption when supply and demand push prices higher.

The new solution is an important part of Arla's strategy to electrify production and provides greater flexibility in energy consumption, enhanced reliability and opportunities for future development.

While the new heating system in Tower 4 is now operational, a similar project is being planned for Tower 5. Here, the gas heating system will also be replaced by a combined steam and electric heating solution. Together, the investments in Towers 4 and 5 will reduce CO_2 emissions by up to 5,200 tonnes annually, equivalent to the annual heating consumption of more than 1,900 households.

"In addition to delivering substantial CO_2e savings, this investment also represents a very strong business case. It is therefore a solution that we will naturally seek to scale across our other sites," says Paul van Rooij, Vice President, Supply Chain, Arla Foods Ingredients.

Better Dairy opens the door to a new generation of nutrition products as lactopontin achieves Self-Affirmed GRAS status

Better Dairy has achieved Self Affirmed GRAS (Generally Recognized as Safe) status for its precision-fermented lactopontin ingredient, marking a major step towards the commercialization of a new generation of nutrition products in the US.

Better Dairy now offers both the world's first supply of precision-fermented lactopontin, and the only commercially available source of lactopontin in the US, giving brands and consumers the first opportunity to access this exciting ingredient.

Lactopontin is a protein that occurs naturally in human and bovine milk and plays a key role in biological signaling pathways associated with tissue growth, repair and renewal. Rather than simply providing another source of nutrition, lactopontin works alongside the body's own biological processes, creating a wide range of new opportunities for the development of products targeting healthy aging, gut health, immunity building, joint health, skin health and sports recovery.

Lactopontin is highly synergistic with other, more established, functional ingredients such as collagen, lactoferrin and probiotics. Rather than replace, lactopontin provides the additional opportunity to stack ingredients, capitalize on synergies and create differentiated products leveraging ingredients consumers already know and trust.

Although lactopontin occurs naturally in milk, its use as a functional ingredient in nutrition and supplements has historically not been possible. This is set to change now that Better Dairy has developed a high-quality supply of lactopontin, with the Self GRAS determination establishing a safety basis and a cleared path to launch in the US. It follows the development of an extensive safety dossier covering the ingredient's composition, manufacturing process, purity, specifications and safety.

Based on the evidence presented, an independent panel of qualified experts unanimously concluded that Better Dairy's lactopontin is safe under its intended conditions of use. Better Dairy is now working with customers to launch new products containing lactopontin in the coming months.

Jevan Nagarajah, Founder and CEO of Better Dairy, said: "For decades, nutrition has largely been about giving the body more of something – more protein, more vitamins, more minerals. We believe the next big opportunity is different – it's about understanding how nutrition can help the body make better use of its own biology. Lactopontin represents that opportunity. We're bringing a naturally occurring signaling protein into nutrition and supplements, with the potential to create an entirely new generation of functional products. Achieving Self-Affirmed GRAS is a key



step for us. It means we're moving beyond our foundations, developing world-leading science, and opening the door to real commercial applications. We're now ready to work with customers who are equally excited to bring this new functionality and next generation of products to consumers."

The company continues to pursue separate regulatory pathways for other markets, including Europe and Asia, as well as additional regulatory approvals, including early life nutrition in the US.

Better Dairy recently introduced Lactopontin to the nutrition industry at SupplySide Global in Las Vegas

www.betterdairy.com

A first-of-its-kind whey peptide nootropic for cognitive wellness innovation

Hilmar has announced the launch of PROtelyze™ Bio-Brain, a first-of-its-kind whey peptide nootropic ingredient designed to support cognitive wellness through the power of GTWY (β-lactolin), a bioactive whey-derived peptide backed by multiple human clinical studies. PROtelyze Bio-Brain offers food, beverage and supplement manufacturers a unique opportunity to develop products for consumers seeking cognitive support in convenient everyday formats. The innovation has already earned industry recognition, winning the 2026 Breakthrough Award for Dairy Ingredient Innovation, presented by Dairy Foods and the American Dairy Products Institute (ADPI). The award recognizes PROtelyze Bio-Brain as a pioneering advancement that expands the possibilities for dairy ingredients in cognitive wellness applications.

Marina Crocker, senior director – product category and marketing, Dr. Chao Wu, director – product research, and Kay Thomson, marketing manager, accept the 2026 Breakthrough Award for Dairy Ingredient Innovation on behalf of Hilmar.

Consumer interest in cognitive wellness continues to expand, creating demand for clinically supported ingredients that can be incorporated into mainstream nutrition products. PROtelyze Bio-Brain combines human clinical substantiation with formulation versatility, enabling brands to bring cognitive wellness solutions to market in beverages, powders, bars, baked goods, gummies, soft chews and dietary supplements.

Produced through controlled enzymatic hydrolysis of whey protein, PROtelyze Bio-Brain delivers GTWY (β-lactolin), a bioactive tetrapeptide associated with improvements in memory, attention and executive function in randomized, double-blind, placebo-controlled human studies. The ingredient has demonstrated benefits using a low daily serving of just 1 gram and has been studied using both cognitive performance assessments and objective measures of brain activity.

"Today's consumers are looking for science-backed solutions that support healthy aging, mental performance and overall wellness," said Marina Crocker, Sr. Director – Product Category & Marketing. "PROtelyze Bio-Brain gives manufacturers an exciting new way to differentiate products with an ingredient that combines compelling clinical evidence, food-friendly functionality and the trusted quality of dairy-based nutrition."

Unlike stimulant-based cognitive ingredients, PROtelyze Bio-Brain is designed to support cognitive performance through targeted neural efficiency and brain activation mechanisms identified in human clinical research. Studies have demonstrated improvements in memory-related tasks, attention and executive function, supported by measures including electroencephalography (EEG) and near-infrared spectroscopy (NIRS).

In addition to its science-backed story, PROtelyze Bio-Brain offers strong formulation advantages, including excellent solubility, heat stability, high digestibility and compatibility across a wide range of product formats. The ingredient is lactose-free and contains approximately 90% protein on a dry basis, making it suitable for innovative applications throughout the food, beverage and supplement markets.

As consumer awareness of brain health and cognitive wellness continues to grow, PROtelyze Bio-Brain provides manufacturers with a differentiated ingredient platform that moves cognitive support beyond traditional supplements and into everyday nutrition experiences.

www.hilmarcheese.com

IMPORTANT NOTICE TO CONTRIBUTORS

February 2027

The deadline for editorial and advertising contributions for this issue is January 2027

Beyond protein: Why taste still wins in GLP-1 formulation



The numbers are hard to ignore. An estimated 12.4% of US adults are now on a GLP-1 medication, roughly double the share of 18 months ago, and industry analysts expect GLP-1 households to account for as much as 35% of US food and beverage sales by 2030. As GLP-1 medications reshape how millions of people eat, food and beverage companies have rushed to answer an obvious question: how do we get more protein, fiber, and other functional nutrition into every bite?

It's the right question, but it's not the only one that matters. Ask anyone actually using these medications, and a second, quieter demand comes through just as clearly: it still has to taste good.

That distinction is becoming one of the more important lessons emerging from the GLP-1 category, and it has implications that reach well beyond this one consumer group.

A Medication That Changes How Food Tastes

GLP-1 medications don't just suppress appetite; they appear to change the sensory experience of eating itself. Consumers using these drugs frequently report that taste feels diminished overall, and some report that specific taste notes, sourness in particular, become more pronounced than before. For product developers, that's a meaningful formulation variable, not a footnote.

It also points to a distinction worth restating for anyone working in food science: taste and flavor are not the same thing. Taste is the basic sensation registered by the tongue: sweet, salty, sour, bitter, umami. Flavor is the fuller experience, built from taste combined with aroma and texture. When GLP-1 consumers say food doesn't taste like it used to, they may be describing a breakdown at either level, or both. Understanding which one is compromised, and for which ingredients, is foundational to solving for it.

Small Portions, High Expectations

The appetite-suppressing effect of GLP-1 medications is well documented, and its downstream effects on product development are significant. Some reports suggest daily caloric intake for GLP-1 users can fall to around 1,000 calories, consumed less frequently throughout the day. That combination (small portions, eaten infrequently) raises the stakes on every single eating occasion.

Social media has made this expectation explicit. GLP-1 users have been vocal about demanding satisfaction from the limited food they do consume: if someone is only eating a few times a day, and only small amounts at each sitting, that food needs to deliver. There's little tolerance for a bland or forgettable bite when it may be one of only two or three eating occasions in a day.

That's a higher bar than most nutrition-forward products have had to clear in the past. It's not enough for a product to be functional. It has to be worth the calories.



The Psychology Behind the Plate

Sensory response among GLP-1 consumers isn't fully mapped yet: diminished taste is the most consistent theme, but individual variation is still being understood. What is becoming clearer is that the psychological dimension of eating changes too.

GLP-1 medications are frequently described as reducing the mental noise around wanting to eat: the intrusive thoughts, cravings, and snack-seeking behavior that many people struggle with. For food developers, that shift changes the job. If a product isn't competing against hunger anymore, it has to compete on its own merits: visual appeal, aroma, texture, and taste all have to work harder to earn a place in a smaller, more deliberate diet. It's a sharper version of a principle flavor developers already know well: consumers eat with their eyes before they ever taste a product, and that first impression carries even more weight when there are only a few eating occasions in a day to make it.

That psychology also lines up with a broader shift industry researchers have started calling "layers of delight": indulgence redefined not as a single hit of sugar or fat, but as a multidimensional experience where richness, complexity, and better-for-you positioning all show up at once. GLP-1 consumers may be an extreme version of that expectation, but they're not inventing it.

At the same time, this consumer has become a more demanding label reader. Front-of-pack claims for protein and fiber are now table stakes. Increasingly, GLP-1 consumers are scrutinizing full

nutritional panels, micronutrients included, and expecting transparency that goes beyond the headline numbers. Packaging and labeling strategy is becoming as much a part of the product experience as the formulation itself.

The Formulation Challenge: Fortification Without Compromise

None of this is entirely new territory for food science. The industry has faced fortification challenges before: adding functional nutrition to a product without wrecking its sensory profile is a long-standing R&D problem. What's different with GLP-1 formulations is the combination of a smaller margin for error (fewer eating occasions to win over the consumer) and a tighter ingredient palette (clean-label expectations).

Taste is only part of the equation. Texture and mouthfeel shift as fortification levels rise, too: added protein and fiber can thicken, dry out, or otherwise change how a product behaves in the mouth, independent of how it tastes. And the right flavor system isn't universal: a seasoning blend built for a shelf-stable snack won't necessarily perform the same way in a refrigerated beverage or a frozen entrée. Testing has to be application-specific, evaluating how a flavor or texture solution holds up through the product's actual manufacturing process, shelf life, and serving format, not just how it performs in a lab sample.

Protein fortification is a familiar culprit for off-notes. Different protein sources introduce different challenges: whey, pea, and other proteins each bring their own characteristic notes that can work against a clean, pleasant flavor profile at higher inclusion rates. Historically, the industry's answer was masking agents: additives engineered to interact with taste receptors and blunt those off-notes.

That toolkit is getting harder to use. As GLP-1 consumers read labels more closely, masking agents are increasingly viewed with suspicion, landing on the kind of ingredients-to-avoid lists that inform purchasing decisions for a label-literate audience. The result is a genuinely harder formulation problem: deliver the protein and fiber, avoid the off-notes, and do it with a clean label.

Solving that problem well requires close collaboration between R&D teams and ingredient suppliers, leaning on inherently clean-label ingredients that can offset off-notes through complementary flavor rather than through masking chemistry. It also means front- and back-of-package information has to keep pace with what this more sophisticated consumer expects to see.

Where Real Food Ingredients Can Help

One category proving useful in this context is dairy, used not as a nutrition claim, but as a flavor-building tool. In flavor-performance terms, whey protein, a common base for high-protein formulations, can introduce a valley in the flavor curve: a cardboard-like off-note that becomes more noticeable at higher inclusion levels. Real dairy ingredients, such as cheese powders or dairy concentrates, can help counteract that. Seasonings compatibility with dairy is well established, and when a seasoning is married with dairy, the resulting flavor tends to settle into a more normal distribution curve rather than spiking or dipping at the edges. The result is the kind of flavor familiar from a glass of milk, butter on bread, or cream cheese on a bagel.

This works because it's addition, not correction. Rather than masking an unwanted flavor, dairy ingredients build a complementary, rounded flavor profile around it. Blending multiple dairy notes (a Parmesan and Romano combination, for example) can intensify that effect further, and layering in complementary spices or herbs adds another tool for offsetting off-notes without relying on masking agents.



It's a useful case study in a broader formulation principle: when fortification introduces sensory challenges (spikes or valleys in the flavor curve), look for ingredients that add pleasant flavor rather than ones that simply suppress an unwanted one. The distinction matters both for taste outcomes and for how the finished product reads on a clean label.

Where Ingredient Innovation Is Headed

This taste-first mindset is beginning to define which ingredient suppliers lead the category. At Bluegrass Ingredients, that's translated into a broad portfolio of dairy, citrus, and plant-based ingredient systems built around the principles of flavor, form, and function. That portfolio has kept Bluegrass Ingredients ahead of GLP-1-driven reformulation trends, with R&D organized around four dedicated focus areas: bold cheese flavor systems for nutrient-dense formats, cultured-dairy umami enhancement, globally-inspired seasoning systems, and flavor-forward solutions for protein and fiber-fortified applications. All four are built to perform in smaller, nutrient-dense portions. The approach relies on natural fermentation and enzymolysis processes rather than synthetic masking agents, positioning Bluegrass Ingredients at the forefront of the clean-label shift reshaping the category.

It's a useful signal for where the category is headed: as GLP-1-driven reformulation matures, the ingredient suppliers gaining traction won't be the ones simply supplying more protein or fiber. They'll be the ones solving the flavor problem that fortification creates in the first place, and suppliers like Bluegrass Ingredients that treat flavor science as a primary R&D focus, rather than an afterthought, are best positioned to lead that shift.

The Broader Lesson for Food Development

The GLP-1 conversation is, in many ways, a sharpened version of a challenge the food industry already knows well: consumers across every generation and demographic want food that is nutritious, convenient, and satisfying, and they are increasingly unwilling to trade one for another. GLP-1 consumers simply make that demand impossible to ignore, because the stakes of a single unsatisfying bite are higher when there are fewer bites in a day.

It's also worth noting that this shift likely outlasts the medications themselves. Even consumers who cycle off GLP-1 drugs, or who never start them, are increasingly gravitating toward smaller, more deliberate portions and higher expectations per bite. Shopper research suggests GLP-1 use is training a broader population to eat more intentionally, which means the formulation lessons developers learn here won't be confined to a single medication category for long.

Meeting that demand requires food scientists, ingredient suppliers, packaging specialists, and manufacturing teams to work in concert, balancing cost, process capability, nutritional performance, and the full sensory experience, from shelf appeal through the last bite. That's a tall order, but it's also familiar ground for an industry that has spent decades adapting to shifting consumer priorities.

The takeaway for product developers isn't that GLP-1 consumers are an entirely new puzzle. It's a reminder that fortification and flavor were never separate problems to begin with, and that no amount of protein or fiber on the label will make up for a product that doesn't deliver on taste. Whatever the target consumer (GLP-1 users, Gen Z, Boomers, or anyone in between), that fundamental hasn't changed.

Bluegrass INGREDIENTS

htpps://www.blugrassingredients.com

Ulrick + Short's new sunflower seed flour range helps manufacturers increase protein and fibre while supporting texture, emulsification and moisture management

Ulrick + Short has launched fazenda™ Lieto, a new range of sunflower seed flours designed to help food and beverage manufacturers meet growing demand for nutrient-dense, protein-enriched products without compromising taste, texture, clean-label credentials or carbon-reduction objections.

Made from dehulled, high-oleic sunflower kernels, fazenda™ Lieto is produced using a gentle mechanical process with no chemical or solvent extraction. This retains native protein functionality, naturally occurring lecithin and valuable micronutrients whilst delivering 54% protein and 21% fibre. The result is a versatile ingredient that contributes nutrition, texture and processing performance in a single solution.

"Over the last decade, we've seen steadily increasing demand for high-quality protein sources and nutrient-dense products that support healthier lifestyles," said Kate Lefroy, Innovation + Technical Sales at Ulrick + Short.

At the same time, developers are looking for ingredients that deliver nutritional benefits while meeting growing expectations around sustainability, functionality and consumer acceptance. Sunflower seeds represent a significant untapped source of protein, fibre and other valuable nutrients, offering a familiar crop source that can be valorised into highly functional ingredients

With excellent protein quality, a naturally high fibre content and a mild nutty flavour profile, fazenda™ Lieto helps manufacturers create products that are nutritious, indulgent and commercially viable across applications ranging from bakery and sauces to desserts and beverages."



More than protein fortification

As manufacturers respond to growing demand for protein-enriched and nutrient-dense foods, many face challenges balancing nutrition with taste, texture, stability and processing performance. Traditional plant proteins can introduce bitterness, dryness, visible colour changes or a powdery mouthfeel, often requiring additional formulation work.

fazenda™ Lieto has a pale colour, smooth texture and mild toasted, nutty flavour that complements chocolate, caramel and roasted savoury applications. Its high dispersibility supports easy incorporation into existing manufacturing processes while helping product developers avoid many of the sensory challenges associated with alternative plant proteins.

Containing all nine essential amino acids with an estimated in-vitro PDCAAS of 0.9, fazenda™ Lieto offers high-quality plant protein alongside fibre and naturally occurring micronutrients. Its amino acid profile complements pea and pulse proteins, enabling developers to create more balanced protein blends whilst supporting fortification targets. The ingredient's high protein and fibre content, combined with a low carbohydrate profile, make it particularly relevant for nutrient-dense foods, sports nutrition products and general fortification strategies.

As an allergen-free ingredient, fazenda™ Lieto also provides formulators with an alternative to wheat, soy, milk, nuts and sesame where allergen management or label declarations present challenges.

Functionality retained through gentle processing

fazenda™ Lieto is manufactured using a mild mechanical process that avoids hexane and other extraction solvents whilst using negligible added water. This helps preserve protein functionality and naturally occurring sunflower lecithin, resulting in an ingredient that delivers both nutrition and performance.

These retained functional properties contribute to moisture management, emulsification, texture development and mouthfeel. As a result, fazenda™ Lieto can support product quality across a wide range of applications while reducing the need for multiple ingredients to achieve nutritional and technical objectives.

Supporting lower carbon product development

Derived from sunflower press cake generated during sunflower oil production, fazenda™ Lieto maximises the value of an existing agricultural crop. The sunflowers are grown and processed within the EU, keeping sourcing and production within a single region to reduce transportation distances across the supply chain. In addition, the manufacturing process is designed to minimise energy use and uses negligible added water, supporting efficient resource use throughout production.

Together, these attributes help deliver a carbon footprint of just 0.425kg CO_2e per kilogram of sunflower seed flour[1], as calculated by a third-party cradle-to-gate life-cycle assessment conducted by Sphera. This provides food manufacturers with a nutrient-rich ingredient that can support both product development and sustainability objectives without compromising functionality or nutritional value.

Familiar to consumers, differentiated for developers

While sunflower seed flour remains a relatively new functional ingredient, sunflower seeds themselves are highly familiar to consumers. Research from FMCG Gurus found that 82% of consumers recognise sunflower seeds, 78% consume them for taste and 57% consume them for health benefits[2]. This familiarity gives manufacturers the opportunity to create differentiated products using an underutilised protein source whilst maintaining a recognisable, consumer-friendly ingredient declaration. It also provides an alternative to the increasingly crowded landscape of pea, soy and pulse-based proteins, helping brands create distinctive product stories and ingredient labels.

Two ingredients for different formulation needs

The fazenda™ Lieto range includes two products, each developed for specific applications.

fazenda™ Lieto C is designed to increase protein and fibre in savoury bakery applications, such as high-protein breads, bagels, wraps and baked snacks whilst contributing to moisture retention and eating quality.

fazenda™ Lieto F is designed to support texture, mouthfeel and emulsification in sauces, dips and beverages. It can help reduce reliance on dairy fat and support allergen reduction initiatives, including replacing ingredients such as sesame in applications like hummus.



Technical support from formulation to launch

Ulrick + Short's technical team provides hands-on development support for manufacturers looking to incorporate fazenda™ Lieto into both new and existing formulations. This includes guidance on inclusion levels, ingredient combinations, processing conditions and the optimisation of taste, texture, stability and nutritional targets.

Food and beverage manufacturers can learn more about the range, explore formulation examples and request a complimentary sample and recipe box by registering for Ulrick + Short's free webinar.

References:

1 The cradle-to-gate carbon footprint was calculated through a life-cycle assessment commissioned from Sphera using the European Commission Environmental Footprint 3.1 methodology.

2 FMCG Gurus, 2025 Q1 - Meat + Plant-Based Protein Survey

https://www.ulrickandshort.com



About Ulrick + Short

Ulrick + Short are specialists in functional ingredients, clean-label formulation and healthier food solutions. They combine scientific rigour with a practical, problem-solving mindset to help food and beverage manufacturers overcome complex formulation challenges.

With development facilities in both the Netherlands and the UK, Ulrick + Short work in close partnership with customers to develop products that perform, process and label better.

In 2021, Ulrick + Short partnered with Novax to form the Ingå Group - a family of European ingredient businesses united by shared values, complementary expertise and a commitment to long-term growth. Adrian Short is CEO of Ingå Group.

Innovative approach to controlling dough elasticity


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As soon as it is rolled out, elastic wheat dough contracts again. Not only is it a familiar scenario but also one of the most disruptive factors in bakery production. However, with GOOD NatureRelax®, GoodMills Innovation now offers a solution provided by the grain itself.

The right dough elasticity determines two things: how easily, quickly and reliably the dough can be processed, and the quality of the finished baked product. Here, a common problem is excessive dough elasticity: the dough immediately contracts after being stretched and "resists" any attempt to reshape it.

Contributory factors

Excessive dough elasticity rarely has a single cause. In fact, there are numerous contributory factors, including the addition of vital wheat gluten, oxidising agents or oxidative enzymes, intensive kneading, as well as firm or cold doughs with short resting times. Flour quality can also play a role. The consequences of overly elastic doughs are clearly apparent in the bakery and on the production line: the dough is difficult to shape, snaps back and has to be corrected by hand. This results in piece weight fluctuations, disrupted processes and excess waste.

Active components from the grain itself

With GOOD NatureRelax®, GoodMills Innovation offers a clean-label baking ingredient that has a direct effect on dough elasticity. Made from 100 % stabilised, finely milled wheat germ and entirely without additives, the name says it all: Nature represents natural origin, while Relax confirms its dough-relaxing effect.

At just 2 to 3 per cent, the wheat germ makes up only a tiny proportion of the wheat kernel, yet plays a vital role: as the plant's nutrient reservoir, it stores dietary fibre, plant protein and germ oil, as well as vitamins and minerals in concentrated form. Two of its natural components are decisive for the dough-relaxing effect: glutathione, a tripeptide with antioxidant properties that breaks down disulfide bonds in the gluten network and is consumed in the process, and protease, an enzyme that breaks down the protein chains of the gluten and softens the dough without being consumed itself.


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The two active components complement one another in the way they work and, together, form a duo for gentle dough softening. In terms of process consistency, GOOD NatureRelax® reliably supports relaxed dough handling and processing, and helps compensate for fluctuations in flour quality.

To ensure that this interplay works reliably, raw material selection is key. That's why a monitoring system at all 24 mill sites of the GoodMills Group records the qualities and regional differences of the wheat germ. The most suitable native germ is gently stabilised and additionally micronised. Each batch is also tested against defined specifications so that GoodMills Innovation can offer its customers consistent functionality and reliable performance. The result is doughs that are more pliable and noticeably smoother, and run more easily through the production line.


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Numerous processing benefits

The beneficial effects are immediately apparent. The dough can be shaped more quickly and cleanly, without snapping back or needing to be corrected by hand. Precise weight portioning becomes possible and the dough pieces retain their shape for reliably consistent results.

On the production line, this is immediately noticeable: machines handle the dough more cleanly and dough pieces do not deform or tear, resulting in a more stable production process. This minimises waste and handling time, while supporting a 10-15 per cent reduction in kneading time.

Dosage: from pretzel to tray-baked cake

GOOD NatureRelax® is designed for wheat doughs and is dosed at 0.1 to 1 per cent on top of the milled cereal products, depending on the respective application. In practice, for example, 0.3 per cent for lye pretzels, 0.4 per cent for laminated doughs such as croissants, and 0.5 per cent for coiled wheat pastries have proved effective.

Optimal dosage can vary depending on the recipe and process management, and should therefore be individually adjusted. GOOD NatureRelax® is designed primarily for direct dough processing followed by baking. If longer proofing or final proofing times are required, the dosage should be adjusted accordingly. The product is also suitable for frozen dough applications, as protease activity naturally decreases significantly at low temperatures.

GoodMills Innovation

www.goodmillsinnovation.com

Roquette launches WELLENCE™ GF 1229 for improved texture, structure and quality in gluten-free bakery

Roquette, a global leader in plant-based ingredients and a pioneer in sustainable food innovation, has launched WELLENCE™ GF 1229, a new functional ingredient solution designed to improve quality and processing performance in gluten-free bakery. Suitable for staples like loaves and bread rolls as well as bagels, pizza dough, and more, WELLENCE™ GF 1229 helps manufacturers overcome some of the category's most persistent formulation challenges, keeping processing simple and costs controlled while delivering improved bread volume, finer crumb structure, and longer-lasting softness for consumers.

Raising the standard for gluten-free bread

Consumer interest in gluten-free products continues to shape the entire bakery landscape, yet poor dough texture and handling, insufficient loaf volume, uneven crumb structure, and loss of softness over time remain key challenges in gluten-free bakery. Recent research involving over 7,000 gluten-free consumers across 13 European countries has highlighted that quality and availability remain important considerations for them, reinforcing the opportunity for manufacturers to deliver better-performing products.[1] However, another recent study found that despite 45% of consumers globally expressing interest in gluten-free foods, only 10% of global bakery launches in 2025 carried a gluten-free claim.[2] This gap highlights an opportunity for manufacturers to develop gluten-free bakery products to meet rising demand, but brands need solutions that can deliver consistent performance, while keeping formulations commercially competitive.

WELLENCE™ GF 1229 is a novel cellulosic hydrocolloid solution that supports processing flexibility and delivers increased bread volume and slice height, a finer, more consistent and brighter crumb structure and softer texture retained over time. In Roquette application trials, WELLENCE™ GF 1229 increased bread volume by 23% versus the market benchmark, while loaves made with WELLENCE™ GF 1229 demonstrated approximately 50% lower instrumental hardness after 21 days, indicating a softer texture even after prolonged storage.[3] Early external application trials are also providing encouraging results across various gluten-free bread recipes and customer evaluations have highlighted strong proofing and loaf expansion as well as benefits to texture, crumb structure and mixing performance.

Delivering performance without added complexity

WELLENCE™ GF 1229 offers an attractive formulation proposition. As well as a low recommended usage level, which delivered improved cost-in-use than a benchmark ingredient in trials,[3] it is easily integrated into established baking processes. For manufacturers already using cellulosic hydrocolloid solutions, WELLENCE™ GF 1229 provides a straightforward route to improved product quality, and in the case of like-for-like substitutions, no label change is needed.

Accelerating innovation in gluten-free baking

"WELLENCE™ GF 1229 shows what is possible when we put the consumer experience at the heart of formulation," said Matthieu Ramette, Innovation



Project Leader at Roquette. "By expanding our gluten-free portfolio, we are giving bakers new tools to solve some of the category's toughest challenges and to create breads that people want to come back to."

This launch also marks an important step in the continued expansion of Roquette's ingredient portfolio. It strengthens the growing WELLENCE™ portfolio of hydrocolloid solutions for gluten-free baking, giving bakers access to a broader range of solutions to support different formulation needs.

WELLENCE™ GF 1229 will be presented to the industry at Fi Europe, which takes place in Frankfurt on 17-19 November, where visitors can meet with Roquette experts to discuss the solution and its potential across gluten-free bakery applications. It has also been shortlisted for the Fi Europe 2026 Innovation Award in the 'Plant-Based Innovation' category, with the winners to be announced on 17 November.

For more information, visit: **https://www.roquette.com/food-nutrition/press-releases/new-gluten-free-bakery-solution**

Olive flour takes its place in the bakery



Asher Magder
Operations & Industrial Development Lead
PhenOlives

After years of development, our flour is on sale this harvest. A frozen gluten-free rice sourdough roll with Italiano shows how fibre, olive-derived compounds and the ingredient's distinctive colour can work in a familiar food.

There is a special moment when a food ingredient leaves the development stage and becomes something people can buy and eat. For us at PhenOlives, that moment has arrived: our olive flour is in commercial production, available for sale this season and already part of a finished bread product. After years of work, seeing it used in a loaf is the kind of progress that makes the long harvest days worthwhile.

We founded PhenOlives in 2022 to make more of each olive processed for oil. Each harvest leaves mills with pulp, kernels and process water to handle in a short season. With Innovalley and the ASSI Olive Mill, we set out to preserve fresh olive material and turn it into ingredients. Three years of research and development have brought us from early trials to an on-site system running alongside oil production.

Our first commercial line at ASSI began operating in late 2025 and produced about 10 tonnes in its initial season. For 2026/27, our first full commercial season, we welcomed Asher Magder as Operations & Industrial Development Lead. His training in plant sciences and genetics, and experience scaling industrial production flows, strengthen us for this stage. He will focus on validating the line as output grows, maintaining quality and efficiency, and setting operating protocols for consistent production.





Production has started for this harvest. We are targeting 100 tonnes, depending on harvest and operating conditions; the line has potential annual capacity of up to 400 tonnes. Our flour is available for sale now. We welcome manufacturers to test it in formulations and explore its fibre, olive-derived compounds and distinctive character in finished foods.

One example is a frozen, gluten-free rice rustic roll, produced by Italiano, an Israeli importer and distributor of quality food brands. It combines rice sourdough, flaxseed and PhenOlives olive flour, bringing an olive ingredient into an approachable everyday bakery product. The product was announced for sale in September. The flour contributes more than a name on the ingredients list: its natural olive colour complements the roll's rustic appearance, while the flavour gives the bread a distinctive Mediterranean note.

There is a practical reason the format matters. Gluten-free breads can stale faster than wheat breads: crumb firming and moisture loss create a shelf-life challenge. Research shows sourdough can delay staling in some gluten-free breads, though results depend on recipe. Freezing can also help retain quality during storage at suitable temperatures. Italiano's frozen sourdough roll shows how product format and ingredients can work together. For us, it is a rewarding milestone: olive flour has moved from a sample to an

ingredient in a product announced for sale.

Olive flour gives food developers a way to build dietary fibre into familiar foods while bringing in olive-derived polyphenols. We describe it as naturally gluten-free and rich in fibre; exact nutritional values should be taken from the product specification. Its olive profile and colour can contribute to both the flavour and appearance of a recipe. We have also explored how to manage the bitterness associated with polyphenols, so the flour can be considered in sweet as well as savoury applications. These characteristics make it a versatile ingredient for formulators looking for a Mediterranean point of difference alongside nutritional value.

Our development work extends well beyond the rustic roll. We have tested olive flour in breads, pizza and flatbreads, pasta, crackers, cookies and muffins. In trials, inclusion levels have ranged from 20% in bread to 100% in crackers, depending on the product and recipe. Those figures are starting points for formulation, not a single recommended use rate: hydration, texture, flavour and the role of other ingredients all matter. The opportunity is to adapt the flour to each application, using it to enrich a recipe, create a distinctive colour or add a new flavour dimension. We are keen to work with manufacturers to develop products that make the most of those qualities.

The benefit can extend to olive mills too. They operate for only part of the year and face variable harvest volumes, oil yields and residue-handling costs. Turning pulp into a saleable food ingredient could add a second income stream alongside olive oil and improve the value recovered from each tonne of fruit. ASSI is our first working example of a mill producing an ingredient on site. The commercial return will depend on volumes, investment, market demand and operating arrangements, but the model creates a route to earn from material that has often required handling or disposal.

Circularity is built into this approach. We separate pulp, kernels and water close to where they arise, with flour as our first commercial output and further uses under development. Processing at the mill can avoid moving wet residues elsewhere and creates the basis for more local recovery. Our goal is to make better use of the whole olive, while giving mills a practical way to diversify their activity.

This is the moment we have worked towards: olive flour is now available to food manufacturers in commercial quantities this season. With a 100-tonne production target, companies can move beyond small-scale trials and begin developing products using the ingredient. The Italiano roll shows it in a finished food. For me, this marks PhenOlives' arrival as a commercial ingredient supplier after years of work at the mill, in the laboratory and with our partners. We are proud to bring olive flour to market and offer mills a new way to create value from their by-products.

PhenOlives

www.phenolives.com



Kemin Food Technologies – North America releases new "Synthetic to Simple" e-book on bakery reformulation

Kemin Industries, a global ingredient manufacturer that strives to sustainably transform the quality of life every day for 80% of the world with its products and services, recently launched a new e-book titled "Synthetic to Simple: Reformulate with Confidence" that highlights how brands can achieve clean label goals while maintaining shelf life, texture, sensory quality, and operational efficiency with proven ingredient swaps, technical support, and application expertise from Kemin.

The new e-book provides a strategic framework for evaluating functionality, performance, and commercial readiness before moving from bench work to full-scale production. The guide also outlines practical examples and proven clean label ingredient swaps from Kemin that can help brands reformulate with confidence.

"Today, manufacturers are challenged with meeting consumers' expectations for great taste, appealing texture, and long-lasting freshness while simultaneously being tasked with simplifying ingredient statements to meet evolving regulations and transparency demands," said Courtney Schwartz, VP of Marketing, Kemin Food Technologies – North America. "Bakery reformulation is much more complex than simply replacing one ingredient with another, as even small changes to a formula can have a tremendous impact. Successful reformulation requires careful consideration of various factors including dough behavior, finished product texture, mold-free shelf life, oxidative stability, flavor, color, processing conditions, and consumer acceptance. The new e-book provides important insights and strategies while highlighting how our range of enzymes, dough conditioners, and mold inhibitors combined with our extensive technical expertise can support manufacturers with the transition to simpler ingredients."

The new e-book identifies ingredient solutions from Kemin for oxidation protection, mold control, and textural quality that can help manufacturers achieve a clean label and deliver fresh, safe, and high-quality finished products, including:

- **FORTIUM® Plant Extract Blends** – A line of rosemary-based plant extract blends that is an effective clean label alternative to synthetic ingredients such as BHA, BHT, and TBHQ. FORTIUM helps to fight oxidation, helping foods stay fresher, longer.
- **SHIELD® Pure** – A highly concentrated replacement for calcium propionate, matching its efficacy, application rate, and sensory attributes. Labeled as "cultured sugar," SHIELD Pure delays mold growth without having a negative impact on other quality and sensory parameters.
- **DoughSoft™ Enzyme Blend** – A line of enzyme-based solutions that improve the textural quality of baked goods and replaces synthetic dough conditioners like DATEM and monoglycerides. DoughSoft also offers benefits like improved dough tolerance, optimized crumb structure, and extended textural shelf life.

"Kemin can help manufacturers navigate reformulation while protecting, and even enhancing, their bottom line," added Schwartz. "Our team collaborates with manufacturers to evaluate their entire formulation and help them navigate reformulation to bring high-quality baked goods to market. The Kemin Bakery Innovation Center is equipped with an analytical lab, ingredient blending capabilities, and pilot-scale production to help meet product goals. Our Customer Laboratory Services (CLS) team also offers complimentary shelf life and sensory testing to support food safety, quality, and yield."

The new "Synthetic to Simple: Reformulate with Confidence" e-book from Kemin helps guide manufacturers through the complexities of bakery reformulation. Click here to access the new e-book and learn more about unlocking smarter reformulation solutions and strategies with expert support from Kemin.

www.kemin.com

Corbion expands natural mold inhibition portfolio with Verdad® Essence WH150



Corbion has expanded its natural mold inhibition portfolio with the launch of Verdad® Essence WH150, a new cultured wheat solution designed to help bakers achieve reliable mold-free shelf life while maintaining the product quality consumers expect. The addition gives bakery manufacturers greater flexibility when selecting a preservation solution to meet their specific formulation and shelf-life objectives, while supporting important product attributes such as taste and texture.

Backed by Corbion's expertise in fermentation, preservation science and bakery applications, Verdad® Essence WH150 strengthens the company's portfolio of natural mold inhibition solutions. Whether developing new products or optimizing existing formulations, bakers can incorporate the solution into a preservation approach designed around their shelf-life and product quality objectives.

"Bakers need preservation solutions that deliver reliable performance while supporting the product experience consumers expect," said Lonneke van Dijk, Global Business Director, Bakery at Corbion. "Verdad® Essence WH150 extends our natural mold inhibition portfolio with a cultured wheat solution that supports effective mold inhibition while helping maintain taste, texture and overall product quality."

Corbion also supports customers with bakery application expertise and predictive modeling capabilities that can help evaluate expected preservation performance earlier in the development process. These tools provide additional insight as bakers optimize formulations, assess preservation strategies and work toward commercialization.

"The value we bring goes beyond the ingredient itself," van Dijk said. "By combining our preservation portfolio with application expertise and modeling capabilities, we can help customers make more informed formulation decisions and move through product development with greater confidence."

The launch of Verdad® Essence WH150 reflects Corbion's continued investment in preservation technologies and expertise that help bakery manufacturers manage shelf life, maintain product quality and advance product development.

Verdad Essence® WH150 is now available in select regions through Corbion's bakery solutions portfolio.

For more information or to request a sample, contact your Corbion representative or visit **www.corbion.com**

New Tate & Lyle Sensation™ tool helps formulators deliver the textures consumers want in crackers

TATE & LYLE PLC, a leading global provider of ingredients for healthier food and beverages, has introduced a cracker edition of Tate & Lyle Sensation™, its proprietary mouthfeel formulation tool.

The tool supports innovation and reformulation by connecting the textures consumers want with the science behind them. It identifies the mouthfeel attributes people value in a given category and geography, translates consumer language into defined sensory characteristics, and helps formulators select ingredients or ingredient combinations to deliver the desired eating experience.

The new edition applies this approach to crackers, using insights from consumers in North America to define preferred textures and guide formulation decisions.

Research from Mintel and Innova suggests younger US consumers, including Gen Z, are interested in exploring new textures and ingredients in biscuits and crackers. For manufacturers, identifying which sensory qualities people prefer can make innovation more purposeful[1].

In Tate & Lyle's study of 108 consumers in North America, texture had the strongest impact on preference among the crackers tested[2]. The most-liked products did not simply have the strongest crunch. Instead, they balanced crispness and crunch, broke down easily in the mouth and avoided excessive hardness, density and grittiness[3].

The research also found that "crispy" and "crunchy" were not interchangeable. Crispier crackers felt lighter and dissolved more readily, while crunchier products were more closely associated with firmness, hardness and density[4].

Veronica Cueva, Acting Chief Science & Innovation Officer at Tate & Lyle, said: "Crackers are often talked about in simple terms, with crunch treated as the benchmark. What this research shows is that preference is much more nuanced. Consumers are looking for a particular balance of crispness, breakdown and ease of eating, and that balance can change by market, product and occasion.

"That becomes increasingly important as crackers take on more roles, including products with added protein and fibre. Our North American study gives us a first cracker case study, but the principle is broader. Tate & Lyle Sensation™ helps us understand the experience consumers are looking for and turn that into a clear development target, rather than simply adding more crunch or more functionality."

That opportunity becomes more complex as crackers take on additional nutritional benefits. The research found protein and fibre were the most valued nutritional additions, even though consumers were less likely to seek products explicitly positioned as "GLP-1 friendly" [5].

Adding those benefits can also change the eating experience. Protein- and fibre-enriched formulations can introduce challenges around hardness, density and flavour, while the lighter structures associated with some preferred textures can be more vulnerable to breakage.

Tate & Lyle Sensation™ is designed to help navigate those trade-offs. Rather than prescribing one ingredient or one definition of the ideal cracker, it combines consumer insight with sensory and application expertise. It starts with the experience



consumers want, then helps guide the formulation and process needed to achieve it.

For example, in one protein- and fibre-enriched cracker project, early versions met their nutritional targets but were too hard and dense, making them less enjoyable to eat. Tate & Lyle Sensation™ helped identify the preferred texture, guiding changes that improved bite and flavour while reducing hardness and density. In a separate model water-cracker system, the same approach reduced breakage fourfold while preserving the light texture consumers preferredReferences:

References:

1 Mintel Leap, US Cracker Report, November 2025, Innovation in Biscuits, Cookies and Crackers 2026 Report and Cracker Purchase Factors 2026. Innova Markets, Biscuits and Crackers Consumer Trends US 2025

2 Tate & Lyle Sensation™ Crackers Consumer Study, N=108, North America. Proprietary consumer and sensory research

3 Tate & Lyle Sensation™ Crackers Consumer Study, N=108, North America. Proprietary consumer and sensory research

4 Tate & Lyle Sensation™ Crackers Consumer Study, N=108, North America. Proprietary consumer and sensory research

5 Tate & Lyle Sensation™ Crackers Consumer Study, N=108, North America. ropri-etary consumer and sensory research

www.tateandlyle.com

MC Mühlenchemie solves process and quality challenges in high-protein pasta

With its Pastazym HighProtein series, MC Mühlenchemie brings to market functional enzyme systems specifically designed for the production of protein-enriched pasta. Together with digital development tools and pilot services, they form a platform for pasta makers who want to reach 18% or higher protein content in their products without compromising on texture, sensory quality, cooking stability or processability.

One in ten new foods in Europe bears a protein claim

Protein-enriched pasta is one of the most dynamic segments on the pasta market. According to the report "High Protein Food & Beverage in Europe" by Innova Market Insights (May 2026), protein is the most important food trend of the decade. Already, one in ten new foods in Europe bears a protein claim. Companies wishing to enter the market with high-protein pasta need to pay attention to more than just nutritional content. The decisive factor is processes that enable high protein content while delivering a high-quality product.

Why pasta dough acts differently with rising protein content

As protein content rises, the behaviour of the dough as well as the final product changes fundamentally. Both the amount and the source of the protein affect the outcome. Alternative protein sources like wheat germ and legumes often overpower the typical pasta flavour and alter the characteristic yellow colour. Furthermore, raw material costs are higher and processes less consistent. Typical issues include unstable doughs, more difficult extrusion, higher susceptibility to breakage, rough or matte surfaces, sticky textures and variable cooking stability. The challenge is to combine high protein content with stable processing and an appealing sensory profile. MC Mühlenchemie's functional enzyme systems address these issues. They stabilize the protein network, reduce stickiness, improve surface quality and cooking tolerance, and contribute to high sensory quality.

"At protein contents up to about 22% the challenges can generally be dealt with using targeted enzyme technology. At higher percentages the dough behaviour changes considerably, making additional support of the gluten network beneficial," says Jana Russnak, Head of Pasta Applications at MC Mühlenchemie. Simultaneously, as the proportion of protein flours rises, their flavour components increasingly come into the foreground. Therefore, for higher protein contents enzyme technology is combined with wheat gluten. These findings are based on extensive testing in the company's Pasta Lab, where recipes with protein contents from 18 to 30 percent are validated under near-industrial conditions.

The platform is thus divided into two approaches based on these technological and sensory considerations. "For recipes containing up to 22% protein, Mühlenchemie offers purely enzyme-based solutions. For higher protein targets, we extend this approach by combining enzymes with wheat gluten in order to further stabilize the dough structure and limit the proportion of flavour-intensive protein flours. This lets us get up to 30%," says Agostino Coppola, Chief Developer of the new High-Protein Platform and Senior Technologist Pasta.

Enzyme systems, Protein Calculator, Ahrensburg Pasta Lab

The MC Mühlenchemie platform has three components. Functional enzyme systems stabilize dough structure, improve processing and provide cooking stability, bite firmness and sensory quality. They are designed for different protein targets and recipe strategies, and are compatible with various protein sources like legumes and wheat germ. The MC Protein Calculator assists with recipe development by calculating the protein content that is feasible with the raw materials used. This accelerates development cycles and reduces testing effort. In the Pasta Lab at the Ahrensburg Stern-Technology Center, manufacturers can validate their recipes under industrial conditions. With the new FAVA extrusion press and the pilot dryer, the entire production process can be replicated at pilot scale.

www.muhlenchemie.com



Leiber opens new production facility in Romania

Leiber is setting the course for further growth: On August 31, 2026, the closing of the acquisition of the new production facility of Agsira S.R.L. in Romania was completed. With this step, Leiber is strengthening its presence in Central and Eastern Europe.

Through the acquisition of the new facility in Mizil, in southeastern Romania, Leiber is expanding its production capacities and creating additional opportunities for the continued development of its business.

"With the new facility, we are creating the foundation to systematically expand our capacities and to continue supporting our customers with the performance and flexibility they need," says Oliver Beckmann, CEO.

The new facility complements Leiber's existing sites and opens up potential for additional production volumes, shorter delivery routes and access to new markets. Following the completion of the transaction, the gradual integration of the site will now begin.

With this additional operational strength, Leiber is sending a strong signal for the future. By maintaining its own production capacities and utilizing by-products from beer production, the company is creating efficient, stable and long-term value chains – closer to customers and relevant markets. This provides the foundation for further strengthening Leiber's market position, seizing new opportunities and growing profitably together with its customers.

"We are delighted to continue implementing our long-term strategy with this investment. The new site is a clear commitment to the region while also creating new perspectives for our company and our employees," adds Gilbert Klausmeyer, CEO.

www.leibergmbh.de

ARYZTA acquires French distribution business

ARYZTA AG has announced that its French Coup de Pates (CdP) business is acquiring 100% of Société Européenne des Beurres (SEB), a French distribution business established who specialise in the distribution of frozen products in south-west France.

SEB has been an exclusive and independent distributor of the ARYZTA, Coup de Pates and La Carte d'Hubert brands in Bordeaux and the surrounding area since 1991.

The acquisition will strengthen CdP's national distribution platform in France and support increased organic growth in the south-west region centered on Bordeaux.

ARYZTA AG Chairman and Interim Group CEO Urs Jordi commented: "The SEB acquisition consolidates Coup de Pates as the regional frozen distributor in south-west France and provides an excellent platform to deliver further strong organic growth for the French business."

www.aryzta.com

new ingredients showcase

ZOΩ3GO™ Softgels: A new trademark introducing a premium, market-ready Omega-3 concept

LEHVOSS UK Ltd, a subsidiary of the LEHVOSS Group, has announced the launch of ZOΩ3GO™ Softgels, a new trademark and finished product concept that brings together sustainable, science-based marine lipids in a convenient, ready-to-market format.

Developed in collaboration with Zooca® The Calanus Company and Golden Omega®, the concept combines the unique science on metabolic health and healthy aging and fatty acid profile of Zooca® Calanus® Oil with ORIVO verified, high-quality fish oil concentrates from Golden Omega®, delivering both differentiation and regulatory relevance for innovative omega-3 formulations.



A balanced omega-3 concept: differentiation meets compliance

ZOΩ3GO™ Softgels are designed to address a key need in the omega-3 category: combining innovative marine nutrition with the well-recognised regulatory benefits of omega-3s.

The formulation brings together Zooca® Calanus® Oil, which provides a unique omega profile in a wax ester form, containing EPA, DHA, SDA and other essential fatty acids, as well as naturally occurring bioactives including unique marine policosanols and natural astaxanthin. It is combined with Golden

Omega® high quality fish oil TG concentrates, which delivers targeted levels of EPA and DHA to support established EFSA health claims, alongside a unique ORIVO-verified origin from pure anchovies sourced in the South Pacific Ocean.

This combination enables product developers to meet EFSA requirements for authorized EPA and DHA omega-3 health claims related to heart, brain and vision support, with one or two softgels per day. At the same time, it strengthens the product's nutritional story through the scientific value of Zooca® Calanus® Oil and the distinctive sustainability credentials of both branded ingredients compared with standard omega-3 products.

From concept to market-ready solution

ZOΩ3GO™ Softgels are positioned as a finished product concept, supporting European brands in accelerating product development and market entry. ZOΩ3GO™ Softgels are also available for the US market.

Key benefits include defined EPA and DHA levels aligned with EFSA health claims, a premium softgel format and appealing colour that meet consumer expectations, and a compelling combination of innovation and sustainability through Zooca® Calanus® oil and Golden Omega fish oil concentrates. The concept also gives nutraceutical brands a streamlined route to market, helping accelerate product development with an innovative, ready-to-launch solution.

Why this matters for the omega-3 category

The omega-3 category is entering a more mature and competitive phase, shaped by consumers looking for science-backed, convenient and responsibly sourced nutritional solutions. While EPA and DHA remain the recognised foundation of the category, brands are increasingly challenged to move beyond standard fish oil positioning with products that are innovative, easy to explain, trusted by consumers and distinctive on shelf.

"This is where ZOΩ3GO™ Softgels are particularly relevant. The concept responds to several key industry trends at once: the continued demand for EPA and DHA with clear health positioning backed by scientific research; the search for innovative lipid sources and differentiated ingredient stories; the growing importance of sustainability and traceability; and the need for faster, lower-risk innovation in finished supplement formats," said Teresita Rudà, Head of Marketing and Brand Positioning at LEHVOSS.

"We are pleased to see Zooca® Calanus® Oil featured in concepts such as ZOΩ3GO™, where its distinctive marine composition can support more differentiated and forward-looking approaches to omega-3 supplementation," said Ole Sakkestad, Chief Sales Officer Human Health and Nutrition at Zooca® The Calanus Company.

"To win in a mature and competitive market, brands don't just need a new formulation—they need a premium standard of quality that drives real commercial success," asserted Sarah Leach, Business Development Manager at Golden Omega.

First commercial launch in Europe

The first commercial launch of a product based on the ZOΩ3GO™ concept is planned in Europe this autumn, with the food supplement brand Holistic in Sweden, marking an important step in bringing this differentiated omega-3 solution from concept to market. The ZOΩ3GO™-based supplement will be sold under the product name "Holistic Omega-3 Fiskolja PRO". This collaboration highlights the relevance of ZOΩ3GO™ for brands looking to respond to evolving consumer expectations with premium, science-based, ready-to-launch marine nutrition solutions.

www.lehvoss.co.uk

VIVAPUR® alginate – phosphate-free solutions for cleaner label advantages

Phosphate replacement in food products has become a highly discussed topic and a growing market trend, driven by an increasing demand for products with a cleaner, more natural labelling and thus higher consumer acceptance.

In alginate products, phosphates are generally used as sequestering agents to temporarily bind calcium during the gelling process. This ensures greater flexibility during production. Replacing phosphates whilst still controlling the alginate gelation and achieving a similar product functionality presents a new challenge for the modern food industry.

JRS has developed different functional systems based on VIVAPUR® Alginate that can be used for phosphate-free formulations e.g. for instant custard cream. These products offer outstanding properties, such as perfect texture and baking stability, while supporting clean-label trends.

www.jrs.eu



Snack concepts with added value for new target groups

"Made for Moments" is one of the current Top Ten Trends by which Innova Market Insights describes the rising demand for snacks and mini meals. Increasingly, consumers want healthy solutions that make it convenient for them to reach their individual health goals, and according to market researchers many people are therefore turning to snacks instead of complete meals. This is especially the case for younger consumers, with over half of Millennials and Gen Z choosing snacks at least four times weekly. Most eat mini meals daily, some even more than once a day. In this context, meat snacks are one of the fastest-growing subcategories worldwide. Hydrosol has developed stabilizing and texturing systems especially for this subcategory, directly addressing the varied expectations of consumers.

With a system from the Hydrosol Naturom line, manufacturers can make protein-rich meat snacks that need no phosphates, thus offering nutritional advantages while aligning with the growing "free from" trend. This flexible system can be used to make declaration-friendly chicken jerky as well as crispy, protein-rich chips from various kinds of meat. In combination with a system from the PLUSstabil series, the result is fat-reduced meat chips with improved texture and nutritional value. They combine an intensive flavor experience, for example a strong, smoky paprika taste, with a special crunch.

Hybrid Snacks: Meat Meets Veg

Trendy meat snacks with high vegetable and fiber content are possible with a stabilizing system from the Hydrosol HydroTOP VE CL line. This system is based on plant proteins and fiber, which can be claimed as benefits on the packaging. Another advantage is that the system supplies the basis for protein-rich formulations with less saturated fatty acids and reduced fat, which likewise can be communicated as marketing claims. It's also ideal for clean label products. The range of applications is broad, including ground meat products enriched with vegetables, meat snacks such as sticks, and popcorn made of chicken and cauliflower. Special children's products are also possible. With the right micronutrient premix from SternVitamin, manufacturers can make snacks for kids that deliver not only an extra serving of vegetables, but also B-vitamins, zinc, and iron to support growth, the immune system, and cognitive development.

For a dip to go with their snack products, manufacturers can offer nutritionally optimized Yogonaise. This creamy mayo sauce contains 20% thermized and fat-reduced yogurt, giving it an appealing freshness and acidity. The enriched calcium contributes to healthy digestion and gut functioning. It also has a reduced fat content of 18% and is high in fiber, both of which can be claimed on the packaging, as well as the added calcium, which can be communicated using EU Health Claims.

www.hydrosol.de

SIRIO Europe launches Creatine+ as creatine moves from the sports aisle into everyday wellness

SIRIO Europe, a leading global contract development and manufacturing organization (CDMO) specializing in advanced nutraceutical gummy and softgel solutions, has announced the launch of its Creatine+ portfolio of eight ready-to-market gummies. Featuring three new concepts pairing creatine with magnesium, zinc and vitamin D, the platform is designed to help brands enter into more than one health benefit space at once, from high-intensity training through to cognition and healthy aging.

Creatine's commercial moment

Creatine is moving beyond its sports nutrition roots, as interest in strength training, healthy aging and science-backed wellness brings the ingredient to a broader consumer audience. Gummies are emerging as a particularly fast-growing format: the number of creatine gummy products in Europe grew by 50% over twelve months prior to January 2026, while the number of brands offering them increased by 48%, more than double versus the 23% growth recorded for creatine powders.

There is still room to grow. Gummies account for just 3% of creatine products in Europe, compared with 7% in the US and Canada.[1] Closing that gap is a formulation problem: creatine is a high-dose active that is difficult to work with in terms of taste, texture and stability. The result is a category where formulation expertise can make the difference between a product that simply carries a creatine claim and one that delivers a compelling consumer experience and brand loyalty.

A shape designed to signal the science

All three new concepts share a single gummy design SIRIO has named the Monolith: a tilted rectangular prism with one sharp, diagonally cut face. In a category driven by functional benefits rather than indulgence, shape serves as an immediate signal of efficacy before consumers engage with on-pack claims. The angled edge is intended to evoke precision, reinforcing confidence in a context where dose transparency and stability have come under heightened scrutiny.[1]

Three pairings, expanding the portfolio

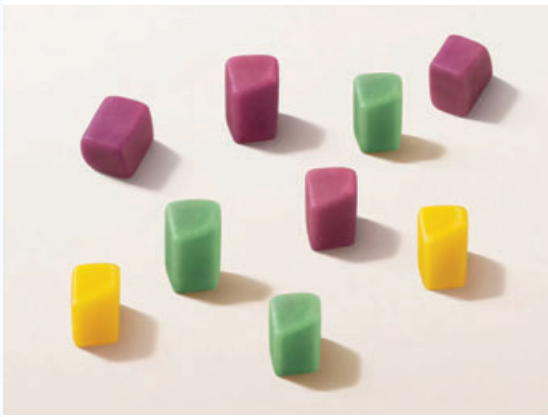
The three new concepts, each featuring a distinctive creatine pairing, target key areas of consumer interest while offering a differentiated approach to creatine supplementation:

Creatine + Mg is where strength meets balance. It combines 3,000 mg of creatine with magnesium citrate at 15% of the reference intake, drawing on magnesium's role in normal muscle function, protein synthesis and energy-yielding metabolism – a fuller story of performance than creatine tells alone.

Creatine + Zn is the next frontier. Creatine built its name on the body, and research interest is now moving to the mind. The concept combines 4,500 mg of creatine with zinc, which contributes to normal cognitive function.

Creatine + D is built for strength through every stage, with a particular focus on women during and after menopause. Menopause changes more than hormones: as estrogen declines, muscle can diminish quietly with it. The concept combines 4,500 mg of creatine with vitamin D, which contributes to the maintenance of normal bones, and vitamin B6, which contributes to the regulation of hormonal activity.

All three concepts are pectin-based, vegan and sugar-free, with natural colors and flavorings, and are designed to deliver their daily serving in three gummies.



Choice, built in

The rest of the creatine portfolio is built for variation. For instance, Creatine Core covers the essentials, done right – three variants at 1 g of creatine per gummy. Available in pectin or gelatin, sugar-free or with sugar – including a version where the sugar provides a functional source of carbohydrate and energy for consumers training actively, rather than being added solely for sweetness. Xtra Creatine steps up to 1.5 g, is pectin-based and vegan, and comes in lemon and lemon green tea flavors.

Momentum, met with formulation

"Creatine is one of the most talked-about ingredients in nutraceuticals today. Its growing popularity is rooted in decades of extensive clinical validation rather than short-term market hype," says Kasia Kortmann, General Manager, SIRIO Europe. "The challenge with creatine is not its efficacy but its delivery. Formulating a high-dose gummy that tastes good, remains stable, and consistently delivers its intended dose requires considerable technical know-how. We've invested in addressing these challenges, developing a range of concepts that give brands greater flexibility to explore different creatine positioning opportunities and bring relevant innovations to market."

www.siriopharma.eu

IMPORTANT NOTICE

COPY DEADLINE FOR FEBRUARY 2027 ISSUE IS JANUARY 31 2027

Curcugen® goes beyond the capsule into two formats consumers crave

Nutraceutical leader DolCas Biotech, LLC is elevating curcumin supplementation beyond the pill by bringing its Curcugen® "full spectrum" curcuminoid complex into two new functional applications via two strategic collaborations. DolCas Biotech recently presented them at SupplySide Global 2026.

DolCas Biotech teamed up with the New Zealand-based Mānuka honey company Mānukora®, Ltd. to incorporate Curcugen® into its "Body Recovery & Gut" formulation. The new functional honey combines raw MGO 850+ Mānuka honey with DolCas Biotech's proprietary, full-spectrum turmeric. The formula also includes concentrated ginger and Sicilian lemon oil.

"Honey and turmeric have a long history together," informs Benjamin Nahar, Head of Product Development and Herbal Science at Mānukora. "In Ayurveda, honey is traditionally described as a yogavahi, a medium that delivers and enhances the effects of the herbs it's combined with. Pairing turmeric with Mānuka felt less like inventing something new and more like bringing a traditional idea into a modern formulation."

Just a spoonful of Mānuka

"Curcugen lets us create formulations like this in a way that matches our philosophy," Nahar continues. "Curcugen is a full-spectrum extract that retains the plant's naturally occurring oils and constituents. It boasts substantially greater bioavailability compared to a standard 95% curcumin extract, allowing us to deliver meaningful potency without having to reduce it to isolated curcuminoids that are typically difficult for the body to absorb. The result is earthy and warming MGO 850+ Mānuka honey with a citrus-bright finish—a rich flavor consumers will actually crave."

Curcugen® is a 100% turmeric-derived, full spectrum curcuminoid complex made from the whole turmeric rhizome and clinically demonstrated to provide enhanced bioavailability. It requires no added bioenhancers and provides the naturally occurring curcuminoids curcumin, demethoxycurcumin (DMC), and bisdemethoxycurcumin (BDMC) as well as native turmeric essential oils and other bioactive components that have been retained through a proprietary manufacturing process.

No formulation limits

Human pharmacokinetic research demonstrates more than 50-fold greater bioavailability of total curcuminoids with Curcugen® compared with a standard curcuminoid extract, supporting its potential for low-dose formulation. Together with its demonstrated safety and tolerability, Self-Affirmed GRAS status for specified uses, mild flavor, water dispersibility, and versatile delivery characteristics broaden the possible applications of Curcugen® beyond conventional capsules and tablets to functional foods, beverages and other innovative delivery systems.

"For product developers, the conversation is changing," explains K G Rao, founder and CEO of DolCas Biotech. "It's no longer just about how much curcumin can you absorb, but what can you create with Curcugen®. Curcugen® is redefining what's possible with this powerful nutraceutical ingredient."

DolCas Biotech's goal in creating Curcugen®



was to preserve turmeric's unique qualities while creating an ingredient that is highly absorbable, clinically meaningful, gentle, formulation-friendly, and versatile. "We're giving product developers the freedom to explore applications that are typically challenging for conventional turmeric extracts," adds Rao. "The future of curcumin no longer needs to be limited to pills. With Curcugen, it could be a spoonful of Mānukora's premium Mānuka honey, a morning beverage, a mid-morning ready-to-drink wellness shot, an on-the-go gummy or piece of chocolate, or an entirely new functional food."

Curcugen® in a new "decision fatigue" drink

Curcugen® also features as a key ingredient in Numin, a functional beverage by SLS Performance Pte., Ltd. developed to address "decision fatigue." Building on Numin's previously published human research, Numin's current formulation incorporates Curcugen® alongside complementary ingredients, leveraging its enhanced bioavailability, turmeric-derived profile and formulation versatility. Available in convenient orange-flavored, single-serve powder sachets that disperse readily in liquids, Numin's internal evaluations report improved mental clarity and sustained decision-making, with effects observed within approximately 60 minutes and lasting up to six hours.

"We didn't want to just stack trendy ingredients and call it cognitive support," says Arun Hozack, CEO of Numin. "We wanted a formulation validated on outcomes people would actually feel. Fewer reckless choices, fewer default choices, and sustained clarity late into the day. That meant building it around a real mechanism, and testing the finished product, not just its parts. Curcugen® stood out early for exactly that reason. It has strong clinical grounding, a clean turmeric-derived profile, and the bioavailability and formulation flexibility to actually perform inside a functional beverage."

Numin targets professionals such as executives, traders, consultants, and managers whose performance depends on sustained decision quality. It is ideal for formulators who recognize decision fatigue as an emerging opportunity at the intersection of cognitive performance, functional beverages, and human performance.

Curcugen® has been clinically investigated across areas including exercise and recovery, gastrointestinal wellness, knee joint health, bioavailability, and safety, while new and ongoing studies are exploring additional health categories and biological pathways. "Several exciting research programs are underway, some of which could take Curcugen® into new categories not traditionally associated with curcumin," concludes Rao.

www.dolcas-biotech.com

Infusd introduces stable liquid Creatine enabled by proprietary ingredient delivery technology

Infusd Nutrition has unveiled a fully stable liquid creatine, a formulation breakthrough that enables delivery of the popular active nutrition ingredient in a far wider range of products without the previously inevitable degradation that reduces efficacy. The company has even created a gel form that can be consumed directly.

The challenge with creatine has always been its rapid degradation into creatinine when added to liquid, thus negating the benefits. The new liquid creatine system maintains stability in a liquid format for up to 24 months with less than 2.5% degradation, opening up a new avenue in sports nutrition formulation.

The liquid creatine system contains 40% creatine monohydrate by weight and is available in multiple flavors and delivery formats, including sachets, syrups, and food-service applications. The platform also enables the incorporation of additional ingredients such as electrolytes, caffeine, omega-3 fatty acids, and other bioactives that are often difficult to deliver in stable liquid systems.

"Liquid creatine is an exciting product, but it's really evidence of something much bigger," said Jack MacDonald, Co-Founder of Infusd. "We've solved the underlying formulation barriers that prevent many of the industry's most valuable ingredients from reaching consumers in the formats they actually want."

For decades, product developers have faced tradeoffs when working with ingredients such as creatine, omega-3s, fat-soluble vitamins, botanical extracts, phospholipids, adaptogens, and mushrooms. Poor solubility, instability, unpleasant taste profiles, sedimentation, and manufacturing limitations have often forced brands to reduce doses, alter formulations, or abandon product concepts altogether.

Infusd's proprietary processing technology was developed specifically to address those challenges. By enabling fat-soluble and insoluble ingredients to function in liquid-compatible, shelf-stable systems, the company allows brands to formulate products that were previously considered impractical or impossible.

The liquid creatine platform serves as a demonstration of those capabilities. Powered by Infusd's breakthrough/innovative technology, the formulation delivers a full serving of creatine monohydrate in a liquid format with no grit, clumping, or mixing required. Consumers can take it directly from a sachet or mix it into beverages.

As consumers continue to migrate toward gummies, ready-to-drink beverages, wellness shots, stick packs, and other convenient delivery formats, Infusd believes formulation technology will become increasingly important in determining which products succeed in the marketplace.

www.infusd.tech



Ethical Naturals launches GreenGrown-GCS® non-animal glucosamine and chondroitin

Ethical Naturals Inc. (ENI) has introduced GreenGrown-GCS®, a non-animal blend of glucosamine and chondroitin sulfate produced through fermentation from non-GMO sources. The new ingredient gives supplement manufacturers an alternative to animal-derived ingredients for joint health products serving vegan and vegetarian consumers.

Glucosamine and chondroitin sulfate have been widely used together in joint health supplements for more than 25 years. Traditional sources include shellfish-derived glucosamine and bovine cartilage-derived chondroitin; these sources limit options for consumers seeking animal-free supplements.

ENI introduced GreenGrown® Glucosamine in 2009, using fermentation from a Non-GMO vegetable source. Since then, the ingredient has been widely used in stand-alone supplements and animal-free joint health formulas. Developing a complementary fermented chondroitin sulfate required additional years of work to achieve consistent quality and reliable commercial production.

GreenGrown-GCS® brings these two ingredients together in a proprietary blend of glucosamine HCl and high-purity chondroitin sulfate. The combination enables manufacturers to offer a familiar joint health formulation from non-animal sources, while addressing consumer interest in ingredient origins and production methods.

To verify ingredient sources, ENI uses testing methods designed to distinguish fermentation-derived materials from animal-derived alternatives. GreenGrown® Glucosamine undergoes testing through ENI's patented Isotopic Signature Carbon Tracing method to verify its vegetable origin. The chondroitin sulfate undergoes Enzymatic-HPLC testing for A-type chondroitin components, which are characteristic of animal-source materials and absent or present at very low levels in fermentation-derived chondroitin.

GreenGrown-GCS® is available in bulk for formulation and in finished veggie capsules. For specifications and additional product information, visit **https://ethicalnaturals.com/products-manufacturing-services/greengrown-gcs-vegetable-source-glucosamine-and-chondroitin/**

www.Ethicalnaturals.com

dsm-firmenich advances patient-centric medical nutrition solutions with focus on taste and enjoyment

dsm-firmenich is calling on the medical nutrition industry to rethink one of the most overlooked drivers of patient acceptance and adherence: sensory experience. Through its global flavor and taste modulation solutions portfolio designed specifically for medical nutrition innovation, the company is helping manufacturers integrate sensory experience alongside nutritional science from the earliest stages of product development.



Why patient experience matters

Delivering both nutritional performance and an enjoyable experience remains a challenge in medical nutrition product design. Many functional ingredients can introduce bitterness, metallic notes, lingering aftertaste, fishy taste and smell, or undesirable mouthfeel - all of which can make products harder for patients to consume consistently. In fact, poor taste is the number one reason for medical nutrition discontinuation.[1] Further research highlights the scale of the opportunity: more than half (56%) of medical nutrition users say products could taste better; and 41% call for wider variety of flavor options.[2] These findings underline the critical need to reframe taste as a practical barrier to acceptance and adherence of medical nutrition solutions, and ultimately clinical outcomes.

From need to enjoyment

dsm-firmenich's broad flavor and taste modulation portfolio brings together the expertise and capabilities needed to address complex sensory challenges in medical nutrition. It combines patient and consumer insights with flavors developed specifically for clinical applications, proprietary taste modulation technologies such as ModulaSENSE®, cutting-edge receptor based sensory science, and optimized premix capabilities in one holistic offering designed specifically for medical nutrition. Highlights include breakthrough solutions proven to mask the fishy taste and smell associated with omega-3 ingredients,[3] approaches that tackle 'flavor fatigue' and support greater patient empowerment, and smell-led concepts that may help stimulate appetite and improve eating experience by turning aroma into an adherence driver rather than a barrier.

Tom Pugh, Senior Director, Global Marketing Medical Nutrition, comments on this latest move: "Patients who rely on medical nutrition are often already navigating some of life's most challenging moments. Getting the essential nutrition they need should never feel like an additional burden. By moving beyond masking and designing for the full sensory experience, we can help transform nutrition from something patients tolerate into something they actively choose and enjoy every day, supporting better adherence and better outcomes."

References:

1 FMCG Gurus: Medical Nutrition survey series 2023. "You state that you didn't complete the recommended course of your products. Why was this?"
2 FMCG Gurus: Medical Nutrition survey series 2025. "How do you think medical nutrition products, specifically designed to help with disease recovery and health, can be improved?"
3 Using the combination of life's®OMEGA 03020, ModulaSENSE® Marine, and optimal flavor profiles.

www.dsm-firmenich.com

Complete Synbiotic solutions, built for food and beverage

Bring the benefits of prebiotics, probiotics and postbiotics into food and beverage products with Bio-az.

Designed with stability in mind, Bio-az Synbiotics are formulated to withstand the challenges of food and beverage processing while delivering functional gut health benefits.

As consumers become increasingly interested in gut health and overall wellbeing, demand for functional food and beverage products continues to grow. For manufacturers, this provides an opportunity to develop products that offer added nutritional and functional value while fitting into existing production processes.

One Solution. Three Biotic Benefits.

Bio-az Soluble brings together probiotics, prebiotics and postbiotics to create a complete synbiotic approach. It contains Bacillus subtilis, alongside prebiotic fibres including inulin from chicory root and maize fibre, and inanimate Bacillus subtilis as the postbiotic component.

Probiotics

Bacillus subtilis helps support a balanced and diverse microbiome and produces beneficial metabolites and postbiotics.

Prebiotics

Prebiotic fibres help nourish beneficial microorganisms, supporting their survival through the upper intestinal tract and encouraging their growth.

Postbiotics

Inanimate Bacillus subtilis provides beneficial metabolites and supports immune modulation.

By combining these three elements, Bio-az Soluble is designed to support the balance, diversity and vitality of the microbiome.

www.healy-group.com

Resistant starch explained: The missing link in EU fibre intake

Despite growing awareness of the importance of dietary fibre, resistant starch intake across Europe remains low. Common food processing methods such as milling, heating and baking can significantly reduce resistant starch content, while current dietary guidelines focus on total fibre intake without specifically addressing resistant starch.[1]

As interest in gut health, digestive wellbeing and metabolic function continues to grow, resistant starch is attracting increasing attention for its unique benefits. We have recently added to our portfolio. We have recently added Solnul® to our portfolio, a researched prebiotic resistant potato starch that offers an innovative way for R&D teams to address this nutritional gap while supporting microbiome health, gut barrier integrity and nutrient absorption, backed by a strong body of research.

In a clinical evaluation, Solnul® was associated with increases in beneficial gut bacteria, including Bifidobacterium and Akkermansia, alongside improvements in bowel regularity.[2] These findings highlight the role of Solnul® in supporting beneficial microbiome changes and normal digestive function.

Referred to as the unsung hero of dietary fibre, Solnul® is a Resistant Starch Type 2 (RS2) with a unique profile, containing ≥60% resistant starch and >63% dietary fibre. 100% water dispersible and well tolerated, it offers formulators a highly versatile resistant starch solution.

Scientific research shows that Solnul® may offer support for gut barrier integrity, microbiome balance, nutrient absorption and metabolic health. Studies[3-6] have shown its potential to help normalise mitochondrial function and amino acid balance, preserve collagen integrity, reduce circulating histamine and decrease acetylated polyamines. Research has also demonstrated changes in specific gut bacteria with improvements in common digestive discomforts.[7]

Solnul® combines clinically researched efficacy with upcycled ingredient innovation. Produced from potato processing by-products that are transformed into a functional ingredient instead of being discarded, Solnul is certified under the Upcycled Certified® Program, which independently verifies its upcycled sourcing and contribution to circular resource use.

Solnul® is neutral in taste, colour and mouth-feel and can be easily incorporated into a wide range of food supplements, functional foods and beverages. To maintain functionality, processing temperatures should be kept below 60°C.



References:

1 Carbohydrates in human nutrition, https://www.fao.org/4/w8079e/w8079e0g.htm, (FAO Food and Nutrition Paper - 66), Report of a Joint FAO/WHO Expert Consultation, Rome, 14-18 April 1997.
2 J R Bush, et al. (2023), Consumption of Solnul Resistant Potato Starch Produces a Prebiotic Effect in a Randomized, Placebo-Controlled Clinical Trial, MDPI.
3 J R Bush, J Han & D R Goodlett (2025), Resistant Potato Starch Supplementation Increases Serum Antioxidant Levels in a Randomized Trial, MDPI.
4 J R Bush, J Han & D R Goodlett (2025), Resistant Potato Starch Supplementation Increases the Serum Levels of Choline and Sphingomyelins Without Affecting Trimethylamine Oxide Levels, MDPI.
5 J R Bush, et al. (2024), Resistant Potato Starch Supplementation Reduces Serum Free Fatty Acid Levels and Influences Bile Acid Metabolism, MDPI.
6 J R Bush, et al. (2023), Resistant potato starch supplementation reduces serum histamine levels in healthy adults with links to attenuated intestinal permeability, Journal of Functional Foods.
7 J R Bush & M J Alfa (2024), Consumption of resistant potato starch produces changes in gut microbiota that correlate with improvements in abnormal bowel symptoms: a secondary analysis of a clinical trial, Springer.

www.lehvoss.de

WACKER enters EU pet food additives market

In pet food, flavorings are used to specifically enhance the smell and taste, thereby increasing the palatability of the food for cats and dogs. Since pets have a particularly keen sense of smell and taste, flavorings can also help make nutritionally valuable but less appealing food ingredients more palatable. WACKER offers high-performance solutions for such applications. As a global supplier of ingredients for the food industry, the company also develops and manufactures ingredients for innovative pet-food formulations.

Use in pet food

With FERMOPURE® VEGAN L-CYSTEINE and FERMOPURE® NATURAL L-CYSTINE, WACKER offers plant-based products that are used in pet food as flavor precursors and flavor components. During production, they react with reducing sugars in what is known as the Maillard reaction, producing characteristic meaty and savory flavors. The vegan products have been successfully established in the food industry for years. As the largest Western manufacturer of L-cysteine and L-cystine, WACKER is now expanding their range of applications to include pet food. These solutions are highly effective even at low doses and are suitable for various dosage forms, such as liquids, chewable products, tablets, or powders.



EU approval enables a wider range of products

"With the new EU approval, we are expanding our range of pet food products in Europe to include amino acids produced through fermentation," says Christian Hauk, Head of BioIngredients at WACKER's Biosolutions business division. "This ensures that our customers receive products made from plant-based raw materials that are of the highest quality and fully traceable."

WACKER has received approval from the European Commission for its amino acids L-cystine and L-cysteine as sensory additives for all animal species.[1] This opens up an important market for the company, which has been supplying ingredients for pet food in the U.S. for more than ten years. With the approval of L-cysteine derived from fermented L-cystine for use in animal feed for all animal species, WACKER occupies a unique position in the EU market.

The approval was preceded by a positive safety assessment by the European Food Safety Authority (EFSA). This provides pet food manufacturers with a clear regulatory framework for the use of FERMOPURE® products for all animal species. The approval covers FERMOPURE® NATURAL L-CYSTINE PET FOOD as well as the following product variants of FERMOPURE® VEGAN L-CYSTEINE PET FOOD: L-cysteine hydrochloride monohydrate, L-cysteine hydrochloride monohydrate 20 mesh, L-cysteine hydrochloride anhydrous, and L-cysteine free base.

Plant-based fermentation

WACKER produces FERMOPURE® through fermentation using plant-based glucose. In this process, L-cystine is produced using a suitable production strain of *E. coli* bacteria and then purified. For L-cysteine, there is one more step: L-cystine is reduced to L-cysteine through electrolysis. Unlike conventional manufacturing processes, the production of the L-cystine used in FERMOPURE® is based on a natural biotechnological process. This enables sustainable production without animal-based raw material - an alternative to conventionally sourced L-cysteine.

Global growth

The global market for pet food and treats was valued at $145.2 billion in 2025. According to the latest report from Global Market Insights Inc., it is expected to grow from $152.1 billion in 2026 to $259 billion by 2035. The European market was valued at $43.2 billion in 2025. In addition to the growing number of pet owners, this trend is driven by the increasing anthropomorphization of pets, accompanied by a rising demand for functional and natural pet food.[2]

References:

1 The basis for this is provided by Commission Implementing Regulations (EU) 2026/402 of February 24, 2026, and (EU) 2026/1012 of May 7, 2026.
2 https://www.gminsights.com/de/industry-analysis/pet-food-and-treats-market

www.wacker.com

Cake gel reinvented: Palsgaard® PowderGel 6800 launched to boost efficiency and reduce waste

Palsgaard has developed a powder-based whipping emulsifier that addresses key challenges of traditional cake gels while delivering the same cake volume, fine crumb and structure.

Cake gels are ready-to-use emulsifier systems that improve aeration, volume, texture and consistency in industrial and semi-industrial cake production. Supplied as soft pastes or gels, they help bakers produce light, uniform cakes using short mixing times and simplified processes.

However, traditional cake gels can also lead to variable aeration, product waste, and frequent manual adjustments of production parameters.

Palsgaard® PowderGel 6800 has been created to provide a new alternative for industrial cake manufacturers.

It can be made into a gel simply by mixing with tap water, or it can be used in its original powder format. In both cases, it will replace cake gel without the need for reformulation or process changes.

It supports consistent aeration and cake volume, stable specific gravity throughout production, and uniform crumb structure and mouthfeel. When used as a powder, it also simplifies handling and dosing and reduces product waste caused by gel residue left in containers.

In addition, the concentrated powder format provides financial and environmental benefits. These include a substantial reduction in warehouse space requirements, lower transportation volumes, and a switch from plastic storage containers to recyclable cartons.

Christophe Lequet, Senior Innovation Specialist at Palsgaard, said: "Industrial cake production has evolved, but traditional cake gels haven't. Industrial cake manufacturers are under pressure to improve production efficiency, lower production costs, and cut their environmental footprint. Palsgaard® PowderGel 6800 is an easy-to-use solution that can tick every box. Our innovation teams are available to provide consultancy and technical support to help manufacturers all over the world benefit from this next-generation solution."



Palsgaard® PowderGel 6800 is non-GMO, free from allergens, and kosher and halal certified.

It is suitable for use in all cake applications in which cake gels may be used, including layer cakes, Swiss rolls, sponge cakes, pound cakes, cupcakes, and high-ratio cakes.

www.palsgaard.com

MartinBauer and Nexture introduce Sweetec, a new fibre-based botanical solution for reduced-suger beverages and spirits

As consumers increasingly look for beverages that combine indulgence with more balanced nutritional profiles, the global food ingredients manufacturer Nexture and the global leader in botanical solutions MartinBauer have joined forces to develop Sweetec, an innovative system designed to enable significant sugar reduction in beverage applications without compromising taste, body or mouthfeel.

Sweetec is an effective solution to answer the most significant trends in the beverage industry, namely sugar reduction and alcohol reduction. Indeed, increasingly health-conscious consumers are paying closer attention to sugar and calorie intake, with 76% of consumers monitoring their sugar consumption and 64% actively seeking to reduce it[1]. At the same time, regulatory pressure continues to intensify. More than 100 countries have already introduced taxes on sugar-sweetened beverages, while new requirements such as the mandatory declaration of calories on wine and alcoholic beverage labels under EU Regulation 2021/2117 are placing additional focus on nutritional transparency and healthier product choices. Furthermore, moderation is reshaping drinking habits, fueling demand for beverages with lower or no alcohol content and creating an additional challenge for manufacturers: delivering the full and satisfying drinking experience consumers expect while reducing ingredients, including alcohol and sugar, that traditionally contribute to sweetness, body and sensory complexity.

Together, these consumer and regulatory developments are accelerating the need for effective solutions that help manufacturers reduce sugar while maintaining taste, texture and overall drinking experience.

This is where Sweetec comes into play, as explained by Dr. Heiko Spitzbarth, Head of Product Development at MartinBauer: "Sweetec brings together the best of nature and food technology. By combining botanical sweetness with advanced fiber functionality, we enable sugar reduction without compromising on taste or mouthfeel.".

Sweetec combines two complementary areas of expertise. HIFOOD – part of Nexture group – contributes Meltec®, its patented vegetable fiber system derived from legumes and cereals, which adds fiber, reduces sugar and replicates the body, texture and mouthfeel that sugar and syrups traditionally provide. Through Sweetcode, MartinBauer applies its unique botanical expertise to deliver natural sweetness, flavor balance and a satisfying sensory experience in reduced-sugar beverage formulations. Together, these technologies make Sweetec, an innovative viscous system capable of replacing up to 50% of sugar, while preserving the sensory experience consumers expect.

"Sweetec is a clear example of what can be achieved when companies work together in an open innovation model," commented Emanuele Pizzigalli, Chief Innovation Officer at Nexture. "At Nexture, we firmly believe that combining internal capabilities with external know-how is a game changer for transformative action, and this collaboration shows it in practice: by blending our expertise with MartinBauer's unique know-how in botanicals, we create a unique solution able to deliver great drinking experiences for consumers while also contributing to enhancing their well-being."



A new approach to sugar reduction in spirits and beyond

Spirits and aperitifs represent a key application area for Sweetec, as these categories can combine the caloric contribution of alcohol with significant amounts of added sugar. Reducing sugar therefore offers manufacturers an opportunity to respond to changing consumer expectations while still delivering a great overall drinking experience.

Sweetec's potential, however, extends beyond conventional spirits. As the beverage market increasingly explores lower-alcohol and alcohol-free formulations, maintaining body and mouthfeel becomes even more critical, since reducing alcohol can remove another important contributor to the overall sensory experience.

The technology also offers potential across a broader range of beverage applications, including vermouth, bitters, sparkling, wine-based drinks, cider, sake, whisky and seltzers, highlighting the versatility of the system across different formulations and consumption occasions.

www.martin-bauer.com

Emsland Group introduces Empure® EF 1000 to support the development of food products rich in protein and fiber

The Emsland Group is expanding its ingredient portfolio with Empure® EF 1000, a nutrient-dense pea flake made from whole yellow peas. The new ingredient gives food manufacturers an additional option for developing snacks and bakery products with higher protein and fiber content, combining nutritional benefits with appealing sensory properties and straightforward processing.

Empure® EF 1000 is a thermally treated pea flake that brings the natural nutritional profile of whole yellow peas into a convenient ingredient format. With approximately 23% protein and 15% fiber on a dry matter basis, it provides a versatile building block for more nutrient-dense food products.



Supporting the next generation of healthier snacks

Consumers are increasingly looking for snacks that offer more nutritional value while remaining enjoyable and affordable. For manufacturers, meeting these expectations requires balancing nutrition with taste, texture, processing efficiency, and cost.

Empure® EF 1000 provides flexibility in product development, with a flake format suitable for a variety of snack and bakery applications. Its nutritional potential has been demonstrated in a baked snack application, where a formulation containing Empure® EF 1000 achieved almost three times more protein and twice as much fiber compared with the original formulation. At the same time, the resulting snack maintained the crisp texture, color, and taste expected from a baked potato chip and qualified for the nutrition claims "high in protein" and "high in fiber."

Nutrition and sensory performance

Improving the protein and fiber content of a product can affect texture, flavor, appearance, and processing behavior. Empure® EF 1000 combines the nutritional benefits of whole yellow peas with the functionality of a thermally treated flake, helping manufacturers pursue nutritional improvements while maintaining the sensory characteristics consumers expect.

"Healthy snacks have moved from niche to mainstream," says Andre Heilemann, R&D Director at the Emsland Group. "Empure® EF 1000 gives our customers greater flexibility when developing products with higher protein and fiber content."

A versatile addition to the ingredient portfolio

Empure® EF 1000 complements the Emsland Group's broader portfolio of plant-based ingredients, which offers different ingredient formats and functional properties to meet specific product and nutritional requirements.

With Empure® EF 1000, manufacturers can explore new possibilities for protein- and fiber-rich snacks and bakery products – from nutritional enhancement of existing products to new product concepts.

Empure® EF 1000: another option for creating the snacks consumers are looking for today — with more protein, more fiber, and no compromise on enjoyment.

www.emsland-group.de

ThreoTech showcases the science behind next-generation magnesium Magtein®

ThreoTech will showcase the latest science behind Magtein®, its magnesium L-threonate ingredient, at Fi Europe (17th-19th November 2026.)

Magtein is a patented, proprietary form of magnesium developed to support healthy brain magnesium levels by facilitating delivery across the blood–brain barrier. It has been available in the EU since November 2024 and was authorized as a novel food in the UK in March 2026.

Magtein is supported by a growing body of scientific evidence, including clinical studies. In a 2025 placebo-controlled clinical trial, it was associated with improvements in cognitive performance, memory, reaction time, brain cognitive age, and heart rate.[1] More recently, researchers have explored whether the sleep benefits previously demonstrated with Magtein extend to athletes, as well as exploring its benefits for recovery and physical performance.

Dr Rafea Naffa, PhD, ThreoTech's Director of R&D, will discuss these studies in a session at the Exhibitor Showcase Theatre at Fi Europe (17th November, 13:30-13:50). He will also cover the preclinical evidence demonstrating Magtein's mechanism of action in magnesium delivery across the blood–brain barrier, uptake into neurons and effects on brain structure and function.

Dr Naffa said: "The evidence base behind next-generation magnesium ingredients, particularly magnesium L-threonate, is growing constantly. At the same time, there's increasing market demand for science-backed solutions in the health areas where they offer benefits – cognitive performance, memory, sleep quality, healthy brain aging, and neural support. At Fi Europe I'll be discussing the body of science behind Magtein and explaining how it can inform both formulation and consumer communication."

Beyond its health benefits, Magtein offers significant advantages to product formulators. It is stable, tasteless, odorless, colorless, water-soluble and available for use in a wide range of applications, including gels, powders and liquid concentrates, as well as tablets and capsules. Magtein does not cause the digestive problems that are common with other, less well-absorbed magnesium compounds. It is certified kosher and halal and is allergen-free, maximizing its appeal among diverse consumer demographics.

ThreoTech will exhibit at FiEurope 2026, Stand #30G14.

References:

1 Lopresti AL, Smith SJ. The effects of magnesium Lthreonate (Magtein®) on cognitive performance and sleep quality in adults: a randomised, doubleblind, placebocontrolled trial. Front Nutr. 2025;12:1729164. doi:10.3389/fnut.2025.1729164

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Barry Callebaut launches Flavourcode™, opening a new chapter in chocolate flavor innovation



Barry Callebaut has unveiled Flavourcode™, a proprietary approach to cocoa fermentation, designed to create distinctive natural flavor profiles and reproduce them consistently, from artisan kitchens to future food-manufacturing applications.

Cocoa characteristics naturally vary between origins, harvests, and seasons. Barry Callebaut's end-to-end expertise across cocoa and chocolate allows us to harness that diversity, discovering richer and more distinctive flavor profiles while bringing greater consistency to our customers. Flavourcode™ brings that expertise to life. Developed through many years of research into cocoa fermentation, its proprietary approach guides fermentation to unlock unexplored flavors within the bean, with greater depth and intensity, without added flavorings, and reproduces defined flavor profiles consistently at scale.

From innovation to creation with Callebaut

The development comes as consumer expectations around chocolate continue to evolve. Barry Callebaut's research across 24 markets indicates that consumers are showing greater interest in distinctive, complex and more immersive taste experiences, while brands and manufacturers are looking for new ways to create meaningful flavor differentiation across their portfolios.

This is where Callebaut's long relationship with chefs and artisans comes together with its latest innovation. Born in Belgium in 1911, Barry Callebaut's chocolate brand has spent more than a century working alongside chocolate professionals, combining chocolate-making expertise with a deep understanding of their craft and creative needs.

"Cocoa is an extraordinarily complex raw material, and understanding how to work and innovate with that complexity is a core part of Barry Callebaut's expertise," said Hein Schumacher, CEO of Barry Callebaut. "With Flavourcode™, we are putting that expertise to work for our customers, opening up unexplored natural flavors within the bean, driving taste intensity, while delivering consistency and workability. Flavourcode™ 01 is just the beginning. We see significant potential to build this into a broader innovation platform across Gourmet and Food Manufacturing."

Callebaut Flavourcode™ 01: the first expression

The first commercial expression of the platform is Callebaut Flavourcode™ 01, developed for chocolatiers, chefs and artisans. It delivers a layered flavor profile, opening with tropical fruit notes including passion fruit, pineapple, mango and ripe banana, followed by dried-fruit characteristics and a refined cocoa finish. Flavourcode™ 01 is designed to do more than introduce a distinctive flavor. Its consistent sensory profile gives chefs and artisans a reliable foundation on which to create, helping them reproduce an intended taste experience time after time. It has been developed for applications including pastry, confectionery, ice cream and plated desserts.

Its launch marks the beginning of a broader innovation journey, with Barry Callebaut also exploring how the platform can be developed with food manufacturers across different chocolate profiles and applications. The innovation was unveiled in Antwerp alongside the World Chocolate Masters 2026 final and Callebaut Innovation Summit, bringing together culinary professionals, researchers and industry leaders to explore the future of chocolate.

"For chocolatiers and artisans, a distinctive flavor is only valuable if it can be relied on in practice," said Ramon Morató, Head of the Barry Callebaut Chocolate Academy™ Centre "Flavourcode™ 01 brings an unusual combination to the kitchen: a taste profile with real personality and the reliability needed to build it into pastry, confectionery, ice cream and plated desserts. That gives us more freedom to create – and ensures a taste consistency for consumers batch after batch."

Building the platform with food manufacturers

With the launch of Callebaut Flavourcode™ 01, Barry Callebaut is exploring how the platform can be developed for food manufacturing applications and across different chocolate profiles. Potential directions currently being explored include Dark 70%, Dark 54% and Milk profiles.

This next phase will explore how the principles behind Flavourcode™ can translate across applications and production environments, combining defined cocoa flavor profiles with the consistency, technical performance and scale food manufacturers require. Working with food manufacturers will also provide an opportunity to understand how distinctive flavor profiles perform across different applications and can be developed at scale.

This evolution reflects Barry Callebaut's Focus for Growth action plan and its ambition to strengthen its position as a solutions provider, concentrating innovation behind differentiated, higher-value opportunities in attractive market segments. Flavourcode™ adds a new dimension to Barry Callebaut's broader solutions portfolio: the ability to develop distinctive, naturally derived cocoa flavor profiles with greater consistency, alongside its existing expertise across chocolate, compounds, fillings, inclusions and Specialties.

Roll-out

Flavourcode™ is available for EU artisans, culinary professionals and food manufacturers as of November 2026, with a broader global rollout to follow.

Additional taste profiles are planned as the Flavourcode™ range develops.

www.barry-callebaut.com

Lantmännen launches NordPea to meet demand for sustainable plant protein

Sweden's Lantmännen has launched NordPea, a premium pea protein isolate with market-leading sustainability credentials. It was developed through a joint-initiative between Lantmännen and Ingredion, under which the two companies are collaborating on meeting demand for competitive, sustainable, high-quality plant proteins.

Lantmännen will manufacture NordPea at its new €100 million plant protein facility in Lidköping, south-west Sweden, which will have the capacity to process approximately 40,000 tonnes of peas and faba beans annually.

The new ingredient will receive its official launch at Food Ingredients Europe 2026, where it will take centre-stage on Lantmännen's stand (30J62) and feature in the New Product Zone. Lantmännen and Ingredion will also deliver a joint-presentation focusing on pea protein in the Exhibitor Showcase Theatre on 17 November at 11.30am.

NordPea has been developed for use in plant-based food applications, including dairy analogues. It will be produced in a vertical supply chain from peas grown by Lantmännen's co-operative farmers in Sweden in line with strict agricultural and sustainability standards. The new manufacturing plant at Lidköping has received support from the Swedish Environmental Protection Agency's climate investment programme.

Fredrik Krook, Managing Director Biorefineries at Lantmännen, commented: "We look forward to introducing NordPea to visitors at Food Ingredients Europe. Pea protein is an increasingly popular choice for food and beverage manufacturers In Europe, and NordPea will help to satisfy this growing demand with a high-quality ingredient produced in a sustainable manner."

To learn more about NordPea pea protein isolate, visit Lantmännen on Stand 30J62 at this year's Food Ingredients Europe (Frankfurt, 17-19 November 2026).

www.lantmannen.com


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Landmark circulation publication validates K2VITAL™ DELTA in the largest clinical trial of vitamin K2 (MK-7) and D3 for coronary calcification

A RANDOMIZED, DOUBLE-BLIND trial published in the American Heart Association's prestigious peer-reviewed journal Circulation, has found that daily supplementation with vitamin K2 MK-7 and vitamin D3 slowed the progression of coronary artery calcification (CAC) by 21% compared with placebo.[1] The two-year multicenter Danish Coronary Decalcification (DANCODE) study, which used Balchem's K2VITAL™ DELTA ingredient, included 398 participants with severe coronary calcification, making it the largest published clinical trial on this vitamin pairing to date. The findings further strengthen the growing body of evidence behind the combination and its potential to support long-term health.



Inside DANCODE: Vitamins K2 and D3 in Ccoronary calcification

The DANCODE study confirms earlier findings from the Aortic Valve Decalcification (AVADEC) trial, and extends the potential of this vitamin pairing to both men and women.[2] In AVADEC, the combination was shown to slow CAC progression, which is strongly associated with a higher risk of heart disease and negative cardiovascular events, in a subgroup of men with severe coronary calcification.[2] Conducted across three Danish hospitals, this new DANCODE follow up trial enrolled both men and women of an average age of 71 with a CAC score of at least 400 Agatston units (AU) – the standard clinical measure for severe calcification. Participants received either 720 μg/day vitamin K2 MK-7, together with 25 μg/day vitamin D3, or a placebo, for 24 months.

After the two-year period, calcification (measured by CT scan) had advanced in both groups, as expected at this stage. However, the progression was slower with supplementation. The data showed a mean increase of 196 AU, compared with 248 AU on placebo, representing a 21% relative reduction in calcification progression.[1] The effect was consistent in women and men, and in participants with moderate and very high baseline calcification. For supplement brands, these findings provide support to help build consumer trust in science-backed solutions for heart health and healthy aging.

Principal investigator of the study, Professor Axel Diederichsen from Odense University Hospital in Denmark, expands on the findings: "Vitamin K2 MK-7 in its all-trans form activates matrix Gla protein, which helps direct calcium to where it is needed in the body. In this study, the reduction in calcification progression was accompanied by a marked fall in the inactive form of matrix Gla protein, which tells us the supplementation reached the pathway it was aiming for."

"We're so proud to see K2VITAL DELTA at the center of such a landmark study, and seeing the research published in the esteemed Circulation journal marks a real milestone for us, reinforcing our commitment to scientific excellence," comments Trygve Bergeland, Nutrition Science Director at Balchem. "By working with hospitals and universities, we aim to help build the global evidence base behind vitamin K2. In fact, K2VITAL™ is the most studied vitamin K2 MK-7 in the last five years, with more participants than all other vitamin K2 manufacturers combined. We're excited to keep up this momentum with continued investment in the partnerships and standards that drive vitamin K2 science forward."

The DANCODE results were presented by lead author Dr Selma Hasific of Odense University Hospital at the recent European Society of Cardiology (ESC) Congress 2026, one of the largest cardiovascular health meetings in the world in Munich, Germany.

References:
1 Hasific, S., et al. (2026). Vitamin K2 and D3 supplementation in patients with severe coronary artery calcification: the DANCODE trial. Circulation.
2 Hasific, S., et al. (2023). Effects of vitamin K2 and D supplementation on coronary artery disease in men: a RCT. JACC: Advances, 2(9), 100643.

https:www.balchem.com

New study supports BODYBALANCE® for sports nutrition Innovation

A NEW RANDOMIZED, placebo-controlled clinical study adds further scientific support for BODYBALANCE® Bioactive Collagen Peptides, GELITA's targeted ingredient solution for innovative sports nutrition and active lifestyle products.

Published in *Frontiers in Physiology*, the study is the first of its kind to systematically examine subtype-specific intramuscular collagen adaptations – types I, III and IV – in response to long-term collagen supplementation during resistance training in humans. The results show that daily supplementation with BODYBALANCE® Bioactive Collagen Peptides, combined with 12 weeks of high-load resistance training, led to a significantly greater increase in endomysial collagen type I content than training with placebo. Collagen type I is an important structural component within muscle tissue and contributes to the extracellular matrix that supports skeletal myofibers.

In the trial, 29 healthy male participants consumed either 15 g per day of specific collagen peptides or a placebo while following a structured resistance training program. The BODYBALANCE® group achieved a 29.8% increase in endomysial collagen type I content, compared with 9.9% in the placebo group – an approximately 3.5-fold greater increase.

For manufacturers, BODYBALANCE® offers a science-backed way to develop differentiated products for active consumers – from powders and ready-to-drink beverages to bars, shots and functional foods. With its strong scientific



foundation and high formulation flexibility, BODYBALANCE® helps brands create sports nutrition concepts that go beyond conventional protein positioning.

With these latest findings, BODYBALANCE® continues to strengthen its position as a trusted Bioactive Collagen Peptides solution for forward-looking sports nutrition innovation. The GELITA LifeScience Institute is your expert partner, providing scientific expertise and application know-how to support the development of your next differentiated product concept.

https:www.GELITA.com

New tate & Lyle sensation™ tool helps formulators deliver the textures consumers want in crackers

FRIESLANDCAMPINA INGREDIENTS, a global leader in proteins and prebiotics, has unveiled new findings from a study that could help pave the way for a new generation of gut health solutions designed specifically for children. The study provides dedicated evidence on how Vivinal® GOS influences gut microbiota derived from children aged 3–12, revealing consistent, dose-dependent effects across multiple indicators of gut health – with significant changes observed even at the lowest dose tested. The findings strengthen the scientific foundation for innovation in an age group that remains comparatively under-researched, opening new opportunities for more tailored nutrition solutions.

Putting children's gut health in the spotlight

Childhood is a period of continued development, including the transition of the gut microbiome towards its adult composition. Yet most paediatric research into galacto-oligosaccharides (GOS) has focused on infants or toddlers. To address this gap and build evidence specific to older children, FrieslandCampina Ingredients has published a study in Frontiers in Nutrition to further understanding of GOS' effects in children aged 3-12.

New science, new possibilities

Conducted in collaboration with preclinical research organization Cryptobiotix, using its predictive ex vivo SIFR® technology platform, the study investigated three doses of Vivinal® GOS – reflecting daily intakes of 1.25, 2.5, and 5 g GOS – using gut microbiota derived from faecal samples of children aged 3–6 and 6–12. Researchers assessed microbial composition and metabolite production, alongside the effects of GOS fermentation metabolites on epithelial barrier integrity using a co-culture model of intestinal- and immune cells.

Vivinal® GOS produced consistent, dose-dependent effects across both age groups, including a pronounced bifidogenic response, increases in other beneficial microbial taxa, and greater production of the short-chain fatty acids (SCFAs) acetate, propionate, and butyrate compared to the control. Metabolomics analyses revealed that GOS fermentation enhanced production of several metabolites associated with improved gut health and immunity, as well as neuroprotection. Fermentation samples also produced dose-dependent improvements in epithelial barrier integrity in the co-culture model. Notably, significant effects across several measures were observed at the lowest dose tested – 1.25 g/day – providing an important starting point for further research into effective GOS dosing in children.

Building a stronger foundation for children's nutrition

This research forms part of FrieslandCampina Ingredients' broader commitment to advancing science for children's nutrition market. The findings add to a growing body of research exploring the benefits of Vivinal® GOS – the world's most researched GOS with more than 70 clinical studies behind it – across digestive health, immune health, mineral absorption, and the gut–brain axis. FrieslandCampina Ingredients combines this growing evidence base with its expertise in prebiotics and early life nutrition through its Kids Nutrition platform, helping brands translate science into targeted solutions for growing children, while continuing to explore the potential of GOS beyond gut health.

Jouke Veldman, Global Marketing Director – Early Life Nutrition at FrieslandCampina Ingredients, comments: "Children's nutritional needs continue to evolve beyond infancy, yet much of the prebiotic science available today comes from research in infants and adults. If we want to create better nutrition for children, we need science that reflects their needs too.

"This study is an important step towards changing that, providing new insights that can help unlock more targeted gut health innovation for children. And this is just the beginning. With more than 75 years of expertise in early life nutrition, our strong heritage in prebiotic science, and Vivinal® GOS – the most researched GOS ingredient globally – we can continue building on these findings to explore new territories, from gut health and immunity to the gut–brain axis."

To learn more about FrieslandCampina Ingredients' Vivinal® GOS and science backed benefits, visit **https://www.frieslandcampinaingredients.com/ingredient-group/gos/**

BioGaia AB will launch a new clinically proven probiotic to support colon health

BIOGAIA ANNOUNCES THE launch of BioGaia® Colus®, a probiotic formulation designed to promote colon health through a strain-specific and targeted delivery approach. The product expands BioGaia's science-based probiotic portfolio for adult gut health with a supplement developed for the lower gastrointestinal tract. The product contains the proprietary probiotic strain *L. reuteri* BG-R59®.

This new product has been clinically proven in two independent randomized, double-blind, placebo-controlled clinical studies. Professor Veronica Ojetti, principal investigator of one of the clinical studies, comments: "The results from our randomized controlled study suggest that early administration of *L. reuteri* BG-R59® may benefit patients with acute uncomplicated diverticulitis, with observed reductions in clinical symptoms and inflammatory markers."

The formulation is a vegan capsule with delayed release technology, enabling more of the probiotic to be delivered farther in the gastrointestinal tract and reach the lower GI tract, where the metabolic activity of probiotic strains may be particularly relevant. The product is also certified FODMAP-friendly, making it suitable for individuals with digestive sensitivity. The bacterial species is part of the QPS list in Europe, and the bacterial strain is GRAS (Generally Recognized As Safe) approved in the US.

Linda Hägglund, Chief Marketing Officer at BioGaia, says: "We are seeing a clear shift in consumer expectations within digestive health, with growing demand for more targeted solutions that are clinically proven. With BioGaia® Colus®, we bring together scientific expertise and consumer insights to meet this need with a product developed for a specific part of the digestive system."

Gianfranco Grompone, Chief Scientific Officer at BioGaia, says: "BioGaia® Colus® underlines our focus on strain specific probiotic and formulation development. By combining a well characterized *L. reuteri* strain with delivery technology adapted for the lower gastrointestinal tract, we continue to expand our portfolio with science-based solutions for digestive health."

BioGaia® Colus® will be introduced in the UK as the initial launch market, followed by a phased rollout across other selected markets.

BioGaia continues its long term strategy of translating probiotic research into targeted formulations, building on decades of research with *L. reuteri* strains and their biological functions.



Study references:

Petruzziello, C. et al. Supplementation with Lactobacillus reuteri ATCC PTA 4659 in patients affected by acute uncomplicated diverticulitis: a randomized double-blind placebo-controlled trial. Int. J. Color. Dis. 34, 1087–1094 (2019).

Ojetti, V. et al. Randomized control trial on the efficacy of Limosilactobacillus reuteri ATCC PTA 4659 in reducing inflammatory markers in acute uncomplicated diverticulitis. Eur J Gastroen Hepat 34, 496–502 (2022).

Sendelius, M., et al. Genomic, phenotypic, and clinical safety of Limosilactobacillus reuteri ATCC PTA 4659. J. Ind. Microbiol. Biotechnol. 50, kuad041 (2023).

www.biogaia.se

Beyond Scalp: New study suggests role for Elissara® in hair growth

Preclinical findings demonstrate nutricosmetic by Monteloeder may offer broad support to hair resilience

RESULTS OF A NEW STUDY show that Elissara®, a nutricosmetic by Monteloeder, SL, a subsidiary of SuanNutra, SA, exhibits multifactorial activity associated with healthy hair growth and hair follicle function. The four-botanical polyphenol-enriched ingredient demonstrated support of hair follicle function and hair resilience.

Hair appearance, and particularly hair loss, is a major concern affecting millions of men and women worldwide and has a substantial impact on self-esteem and social confidence.

"Consumers are increasingly concerned about their hair's appearance and are seeking natural, science-backed solutions that support hair vitality," explains Mariana Ortega, Science Marketing Manager for SuanNutra. "Supplement brands are responding to the growing demand for hair health solutions. The category is evolving from multivitamins targeting hair, skin, and nails toward more advanced, targeted products. We empower supplement brands with a complete beauty-from-within toolkit, enabling them to develop next-generation solutions that complement consumers' healthy lifestyles and go beyond topical care."

"Elissara is a great example of Visible Radiance™, our branded beauty-from-within line. "This science-driven platform designed as 'plug-in' line for beauty brands," adds Ortega.

Elissara® is a proprietary combination of four herbs formulated to work together to support the scalp's environment for more vibrant and healthier looking hair. It includes standardized extracts of lemon verbena (*Lippia citriodora*), olive leaf (*Olea europaea*), Japanese pagoda tree (*Styphnolobium japonicum*), and rosemary (*Rosmarinus officinalis*).

The preparation delivers a specific fingerprint of bioactive compounds, including: verbascoside, oleuropein, hydroxytyrosol, quercetin, and rosemary-derived diterpenes (carnosol and carnosic acid). Together, these phenolic compounds provide a broad spectrum of antioxidant and anti-inflammatory activity

Getting to the root of hair growth

This three-pronged preclinical trial, published in the August 2026 issue of the journal *Biomolecules* involved laboratory assessments of human dermal papilla cells and scalp tissue samples exposed to environmental stressors such as pollution and UV light. Results showed that Elissara® influenced multiple biological pathways associated with healthy follicle function and the hair growth cycle. In human dermal papilla cells, Elissara® increased cell proliferation to approximately 2.5 times that of untreated controls.

Elissara® increased both collagen and signaling proteins associated with healthy hair-follicle function, including markers involved in cell proliferation, structural support and follicular signalling in human scalp explants. Elissara® was shown to help preserve growth-signalling IGF-1 protein levels important for hair-follicle development under environmental stress as well as reduce markers of oxidative damage, in scalp tissue exposed to PM2.5 pollution and UVA-induced environmental stress.

Beauty from skin to strand

"Elissara was initially developed as a natural inner beauty botanical formula to support the skin against pollution and UV exposure," informs Daniel González-Hedström, PhD, R&D Director for SuanNutra." It later exhibited scalp health benefits in a clinical study involving 66 women where daily oral supplementation significantly improved scalp moisturization and hydration, and reduced sebum levels and scalp redness. The benefits were also reflected in participants' self-assessments, with almost 79% reporting healthier-looking hair and 76% noting enhanced shine. Close to 80% of them reported that their hair felt stronger. This is what inspired us to further explore its potential in supporting hair growth."

The science of hair growth

Hair growth and follicular function are complex,



shaped by a mix of genetics, hormonal changes, and inflammation, alongside lifestyle and environmental factors that can influence hair follicles. Androgens, particularly dihydrotestosterone (DHT), are known to contribute to shortening the anagen (growth) phase and shrinking hair follicles, while declining estrogen levels in women, particularly during menopause, may lead to hair thinning. Preclinical research showed that Elissara® may help support a healthier hormonal environment around the hair follicle by modulating pathways linked to DHT.

"Rather than relying on a single pathway, Elissara® combines four standardised, polyphenol-rich botanicals selected to provide complementary biological activity," says González-Hedström. "We are gradually unearthing Elissara®'s potential benefits on hair resilience. The findings of this preclinical trial provide new insights into its pathways of action and help us understand how the composition may support healthy follicular function. The next step is to investigate whether these mechanistic findings translate into measurable hair benefits in a clinical setting."

Previously marketed under the name "Zeropollution®," Elissara® is backed by two clinical trials demonstrating its positive impact on scalp condition and the hair's appearance. At a daily dose of 250 mg, it is available in various formats including tablets, capsules, or softgels.

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Rapid focus, no caffeine: New study confirms Zynamite® delivers fast-acting benefits for cognition and mood

A CLINICAL TRIAL HAS validated the fast-acting cognitive and mood benefits of Nektium's water-soluble Zynamite® mango leaf extract.

In the functional beverage and supplement markets, consumer demand is shifting away from high-stimulant, high-caffeine formulas toward more balanced options that combine sustained energy with cognitive support[1].

Zynamite® is an award-winning non-stimulant caffeine alternative that does not produce side effects such as jitters, crashes or sleeplessness.

Clinical tests carried out in 2025 showed that a single 100mg dose delivers sustained mental focus and emotional balance[2].

A new study, published in *Pharmaceuticals*, was created to replicate and validate those findings[3]. The results reproduced the acute benefits in a healthy young adult population, including a rapid onset of effects and a sustained improvement in cognitive performance and mood over a five-hour window.

Ana Beltrán, PhD, Project Manager – Research, Development & Innovation at Nektium, said: "In nutritional science, showing an ingredient delivers consistent results across multiple gold standard clinical trials is critical. This confirmatory study reinforces our earlier findings, strengthening Zynamite®'s scientific foundation and credibility with regulators, brand managers, and consumers. It firmly positions Zynamite® as an evidence-backed, caffeine-free solution for fast-acting, non-stim energy and cognitive support."

The randomized, double-blind, placebo-controlled, crossover replication study evaluated 88 healthy university students aged 18-25 years under exam-time stress. Participants received a single 100mg dose of water-soluble Zynamite® (Zynamite® S) or placebo.

Using gold-standard neuropsychological assessments – including the Trail Making Test (TMT), Digit Symbol Substitution Test (DSST), and Stroop Color Word Test – the study again demonstrated statistically significant acute improvements compared to baseline and placebo across multiple areas.

These results showed that:

- **Psychomotor speed** significantly improved at all time points from baseline, including by 30% at three hours and 25% at five hours. Compared to placebo, Zynamite® also demonstrated significant improvements at all time points
- **Executive function and cognitive flexibility** significantly improved from baseline, by 24% at three hours and 21% at five hours. Results were also significant relative to placebo at these time points
- **Processing speed** significantly improved from baseline by 14% at three hours and by 17% at five hours, with significant improvements also found compared to placebo at all time points
- **Selective attention** significantly improved from baseline by 5% at five hours

The researchers also observed a positive, acute impact on emotional balance using the Profile of Mood States (POMS) and Total Mood Disturbance (TMD) scales. This was characterized by a 24% improvement in overall mood state at three hours and 24% at five hours from baseline, with a significant advantage over placebo at all time points.

From baseline, tension reduced by 31% at three hours and 25% at five hours, while depression reduced by 24% at three hours and 23% at five hours. Compared to placebo, Zynamite® also maintained a significant advantage at 30 minutes and three hours for tension reduction and at three and five hours for depression reduction.

A marked and significant reduction in fatigue was seen at all assessed time points from baseline – including by 26% at three hours and 26% at five hours – and also compared to placebo.

These positive effects on mood were observed from the first assessment at 30 minutes.

David Fuentes, PhD, Nektium's Project Manager – Research, Development & Innovation, said: "We



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are delighted with the outcome of this replication trial. Zynamite® is a versatile, experiential ingredient capable of powering next-generation mind and mood products, including caffeine-free and hybrid caffeine-reduction formulations. Its neutral taste profile and instant water solubility make it an ideal active ingredient for functional beverages, energy shot alternatives, gummies, sticks, capsules, and tablets."

References:

1 FMCG Gurus 'Hydration and Clean Energy: *New Consumer Expectations*' (December 2025)

2 Castellote-Caballero et al. Acute Supplementation of Soluble Mango Leaf Extract (Zynamite® S) Improves Mental Performance and Mood: A Randomized, Double-Blind, Placebo-Controlled Crossover Study. *Pharmaceuticals*, 2025;18:571. doi: 10.3390/ph18040571

3 Beltrán-Arranz et al. Cognitive and Mood Effects of a Soluble Mango Leaf Extract (Zynamite® S): A Randomized, Double-Blind, Placebo-Controlled, Crossover Replication Trial. *Pharmaceuticals*, 2026;19(7):1112. https://doi.org/10.3390/ph19071112

www.nektium.com

Naticol®: New science on skin repair

A RECENTY PUBLISHED STUDY (2026) found that Naticol® significantly accelerated wound healing by helping shift the local tissue environment from chronic inflammation towards a pro-healing, antioxidant and tissue-remodelling state[1]. For R&D teams exploring next-generation skin health concepts, these findings provide a compelling perspective on the role of collagen peptides in supporting skin repair and regeneration.

Beyond supporting the skin's repair processes, important research on Naticol® has demonstrated benefits for skin firmness, hydration, radiance and wrinkle reduction[2]—creating opportunities to formulate differentiated beauty-from-within solutions that support healthier-looking skin from the inside out.

The formulation potential of Naticol® extends beyond skin beauty. Research also supports its role in joint health, muscle mass and strength[3,4], enabling a broader range of targeted or multi-benefit concepts. In addition, Naticol® demonstrates benefits for gut health[5] and is the only collagen with a patented application in this area, setting it apart from many collagen ingredients focused primarily on beauty and joint health.

Produced in Europe through a unique enzymatic hydrolysis process, Naticol® delivers Type I fish collagen peptides. With Friend of the Sea® certification, Naticol® combines formulation versatility with multiple grades suitable for a wide variety of delivery forms.

Looking for an advanced collagen solution? Naticol®x3Peptide is a premium fish collagen containing a minimum of 25% tripeptides and featuring a low molecular weight. For formulators seeking a high-value collagen option, it offers clinically demonstrated benefits for skin and joint health.



Your next collagen formulation starts with Naticol®. Contact our local sales manager now.

References:

1 Salon M, et al. 2026
2 Duteil L, et al. 2016
3 Lacey S, et al. 2019
4 Statistical Study Report 2019 (unpublished)
5 Rahabi, et al. 2022.

www.lehvoss.de

New clinical study expands on LPLDL® efficacy in adults with coeliac disease and demonstrates improvements in key cardiometabolic biomarkers

PROBIOTIX HEALTH, A life sciences company developing pioneering probiotic solutions for cardiometabolic health, has announced the publication of a new pilot human intervention study demonstrating the efficacy of its patented probiotic strain *Lactobacillus plantarum* ECGC 13110402, LPLDL®, in adults with coeliac disease (CeD) and hypercholesterolaemia. It is the first published clinical investigation evaluating LP_{LDL}® in this patient population.

The randomised, placebo-controlled pilot human intervention study was conducted over 9 weeks followed by a three-week washout period at UOC of Gastroenterology of the AOU Ruggi d'Aragona of Salerno in Italy. It found that adults with CeD and hypercholesterolaemia, taking one bilayer tablet containing 25mg of LP_{LDL}® and 400mg of PSS (Plant Sterols and Stanols) twice daily, showed consistent improvements in atherogenic lipid markers, including LDL-cholesterol, total cholesterol, non-HDL-cholesterol and apolipoprotein B, compared to the placebo-matched participants. The active group also demonstrated positive changes in gut microbiota composition, including increased microbial diversity and higher levels of beneficial bacterial groups.

These findings also contribute to the growing body of evidence found in previous studies carried out by ProBiotix Health, further demonstrating that the inclusion of LPLDL® within multi-ingredient formulations has a positive impact on key cardiometabolic health biomarkers.

Dr. Adele Costabile, Professor in Clinical Nutrition and the Microbiome at the University of Roehampton, who led the investigation, commented: "These key findings continue to show that LP_{LDL}®, combined with PSS, can support lipid management and beneficially modulate gut microbiota in adults with CeD. Although untreated CeD is often associated with low cholesterol due to impaired nutrient absorption, cholesterol levels frequently increase to normal levels following adoption of a gluten-free diet, leaving many patients with the same cardiometabolic challenges as the wider population. This study represents the first clinical investigation of LP_{LDL}® in adults with coeliac disease and marks an important first step in addressing an unmet need to support cardiometabolic and intestinal health in adults with CeD beyond dietary management alone."

Participants were instructed to maintain their usual dietary intake and physical activity levels, while avoiding other probiotic products that could influence gastrointestinal motility or lipid metabolism. Key findings after the 9-week treatment phase and three-week washout period highlighted:

- Statistically significant reduction in total cholesterol levels, with reductions of 12.3% at week 5, 16% at week 9, and 13.4% after washout.
- Significant reduction in LDL cholesterol by 11% (whereby previous studies suggested a decrease between 5-12% with consumption of higher PSS doses).
- A significant decrease in non-HDL cholesterol by 19%, compared to an 11% reduction for the placebo group.
- A significant decrease in apolipoprotein B concentrations by 19% for the active group only, an important biomarker of cardiovascular risk.
- Higher alpha diversity, a hallmark of intestinal and systemic health, and increased proportions of *Bifidobacterium*, *Christensenellaceae* R-7, and *Lachnospiraceae* ND3007, in the active group only.
- Observed a significant increase in vitamin D levels of those in the active group. This finding warrants further investigation to support future formulaic opportunities combining LP_{LDL}® and vitamin D.

Steen Andersen, CEO at ProBiotix Health, added: "Every new clinical study strengthens the evidence base behind LP_{LDL}® and gives our partners greater confidence when selecting a clinically validated ingredient for differentiated cardiometabolic products. This latest study is particularly exciting since it demonstrates positive outcomes in a new patient population, while highlighting our continued commitment to scientific excellence and a compelling commercial proposition for the value of LP_{LDL}® in combination with complementary cardiometabolic ingredients".

As a patented probiotic strain designed to support cardiometabolic health, LP_{LDL}® was initially selected from a collection of over 4,000 microbial candidates for its superior bile salt hydrolase activity and cholesterol reduction activity, in combination with its ability to survive in high concentrations of bile salts.

Previous independent human intervention studies have shown that daily intake of LP_{LDL}® has a positive impact on multiple cardiometabolic health biomarkers, including total, LDL and HDL cholesterol, apolipoprotein B, triglycerides and blood pressure

www.probitixhealth.com

Mnemosyss®: A multi-target marine bioactive for healthy cognitive ageing

A NEW CLINICAL RESEARCH has shown that after 90 days of supplementation, Mnemosyss® resulted in a significant improvement in episodic memory performance compared to placebo, assessed using standardized neuropsychological tests, particularly during complex tasks. Its effectiveness on cognitive function has been demonstrated in a randomized, double-blind, placebo-controlled clinical study conducted in adults aged 60 to 73 with mild, non-pathological cognitive decline. Additional benefits were observed in working memory and cognitive strategies, reflecting improved efficiency in information processing and retrieval.

Mnemosyss® is a patented natural marine ingredient, derived from sardine by-products through an eco-friendly enzymatic hydrolysis process. From a nutritional standpoint, it is characterized by a unique and synergistic composition combining low molecular weight marine peptides, offering high bioavailability and

digestibility, marine omega-3 fatty acids, including EPA and DHA, and a natural source of vitamin B12, which contributes to normal brain function.

The health benefits of Mnemosyss® are backed by more than nine years of research, including the BrainBooster collaborative R&D project (funded by the Brittany Region and BPI France), and rely on a solid scientific foundation comprising preclinical, mechanistic, and published clinical studies. As part of this scientific program, the team sought to understand how marine bioactives could influence the complex biological processes that gradually impair cognitive function with age. This approach considered the fact that cognitive decline is not due to a single mechanism but rather to the progressive interaction of several hallmarks of brain ageing such as neuroinflammation, oxidative stress, gut microbiota dysbiosis and chronic stress. A series of preclinical studies has indeed demonstrated that Mnemosyss® promotes healthy brain ageing and helps limit age-related cognitive decline by targeting several biological pathways involved in memory, inflammation, stress, and the gut–brain axis.

Thanks to its multi-target mode of action,



robust scientific data, and preventive approach, Mnemosyss® represents a relevant nutritional solution for supporting cognitive ageing and addressing the growing challenges related to brain health within a well-ageing approach.

To learn more about the clinical study: https://doi.org/10.1016/j.ajcnut.2026.101360

www.abyss-ingredients.com

Balchem's Optifolin+® demonstrates superior methylation capacity, advancing epigenetic health solutions

A NEWLY PUBLISHED peer-reviewed study in the Journal of Dietary Supplements has shown that Balchem's choline-enriched L-5-methyltetrahydrofolate (L-5-MTHF) ingredient, Optifolin+®, significantly enhances cellular methylation capacity and DNA methylation in a human cell model.[1] These breakthrough findings provide compelling mechanistic evidence of the solution's biological activity, further strengthening the scientific foundation for brands developing next-generation products for healthy aging and epigenetic health.

The Methylation Engine for Healthy Aging

Healthy aging is increasingly being understood through the lens of epigenetics, which centers on how gene expression is regulated without altering the genetic code itself.[2] At the core of this "control system" is methylation, a cellular process in which carbon units (or methyl groups) are added to molecules such as DNA, influencing its function and expression.[3,4] Disruptions in DNA methylation patterns are associated with genomic instability. Insufficient availability of methyl donor nutrients such as folate can contribute to genomic disruptions over time.

Optifolin+ was developed to address this challenge through the synergistic combination of L-5-MTHF and choline, two methyl donors that work through interconnected one-carbon metabolic pathways.[5] This unique pairing allows Optifolin+ to deliver a 7x methyl agent advantage compared to other folate forms and achieve a 98% methyl capacity, optimizing support for DNA integrity and stability that is foundational to cellular health.

Study Overview And Key Findings

Conducted in collaboration with the University of Arkansas for Medical Sciences, the new study evaluated the biological activity of Optifolin+ in a human cell model (HepaRG) over a 96-hour period. The results showed that Optifolin+ acts as a modulator of methyl-donor status, increasing S-adenosylmethionine (SAM) by 71% and enhancing cellular DNA methylation inside the cell by up to 14x.[6] These findings substantiate the role of Optifolin+ in epigenetic regulation, which is key for maintaining DNA stability and genomic integrity.

"Folate plays a foundational role in cellular function, yet, modern lifestyle factors from stress or suboptimal diets can affect methylation efficiency.[7,8,9] For brands looking to innovate beyond traditional folate products, understanding biological performance matters," said Lauren Eisen, Sr. Marketing & Business Development Manager, Minerals and Nutrients, Balchem Corporation – Human Nutrition & Health. "This latest research demonstrates how Optifolin+'s unique choline-enriched structure translates into meaningful cellular activity. These findings provide a stronger scientific foundation for next-generation healthy aging and epigenetic health solutions."

For more information about Balchem and its choline-enriched folate, Optifolin+®, visit: **https://balchem.com/hnh/mn/optifolinplus/**



References:

1 Clement, K., et al. (2026). (6S)-5-Methyltetrahydrofolate Dicholine Salt Modulates Methyl-Donor Metabolites and Repetitive-Element DNA Methylation in HepaRG Cells. *Journal of Dietary Supplements*, 1-14.

2 Center for Disease Control and Prevention. (2025). What is epigenetics? CDC Genomics and Health. Available at: https://www.cdc.gov/genomics-and-health/epigenetics/index.html

3 Menezo, Y., et al. (2020). Methylation: an ineluctable biochemical and physiological process essential to the transmission of life. *International journal of molecular sciences*, 21(23), 9311.

4 Greenberg, M. V., & Bourc'his, D. (2019). The diverse roles of DNA methylation in mammalian development and disease. *Nature reviews Molecular cell biology*, 20(10), 590-607.

5 Bortz, J., & Obeid, R. (2025). The shuttling of methyl groups between folate and choline pathways. *Nutrients*, 17(15), 2495.

6 Clement, K., et al. (2026). (6S)-5-Methyltetrahydrofolate Dicholine Salt Modulates Methyl-Donor Metabolites and Repetitive-Element DNA Methylation in HepaRG Cells. *Journal of Dietary Supplements*, 1-14.

7 Choi, S., & Friso, S. (2010). Epigenetics: A New Bridge between Nutrition and Health. Advances in Nutrition, 1(1), 8-16.

8 Galkin, F., et al. (2023). Stress, diet, exercise: Common environmental factors and their impact on epigenetic age. *Ageing Research Reviews*, 88, 101956.

9 Oblak, L., et al. (2021). A systematic review of biological, social and environmental factors associated with epigenetic clock acceleration. *Ageing Research Reviews*, 69, 101348.

Pregnancy puts the developing brain first. New research says mom's mind deserves attention, too

WHEN IT COMES TO pregnancy nutrition, much of the conversation understandably centers on the developing baby. But new consumer research from CHEMI Nutra suggests another part of the story deserves attention: the mother's own mind.

In She/Her. Evolving.™, a study of 512 U.S. women ages 25–45, 87% of respondents to a pregnancy-related question said supporting healthy brain development was extremely or very important. At the same time, 83% of respondents to a separate question about pregnancy or early motherhood reported experiencing brain fog or difficulty concentrating significantly or somewhat.

The findings highlight a meaningful opportunity for the nutrition industry: supporting healthy development while giving greater attention to the cognitive and emotional wellbeing of the woman experiencing pregnancy and motherhood.

"We spend a great deal of time thinking about the developing brain during pregnancy, and rightly so," said Mike Petteruti, President and General Manager of CHEMI Nutra. "But our research invites us to think about the woman herself. Her mind, her mood and her nutritional needs are changing, too. That creates an important conversation for the next generation of women's health innovation."

Her mind is changing, too.

The research suggests that maternal cognition is only one part of a much broader picture.

When asked which aspects of mental wellbeing became more important during pregnancy or motherhood, women identified managing stress (69%), emotional wellbeing (68%) and sleep (62%) as leading priorities. Mental clarity (53%), memory (50%), feeling like themselves (49%) and focus (46%) also featured prominently.

Together, these findings suggest that mind and mood may be more closely connected in the maternal health experience than conventional, single-benefit approaches to nutritional support might imply.

And women appear receptive to nutritional solutions that recognize those connections. Across the broader study, 70% selected perspectives that recognized connections among cognitive health, emotional wellbeing, physical performance and pregnancy or lactation, rather than viewing these areas as entirely separate. Meanwhile, 74% found an ingredient or formulation whose science could remain relevant to more than one changing need extremely or very appealing.

For formulators and brands, the opportunity may be less about introducing another isolated benefit and more about considering how nutritional science can support a wider range of evolving needs.

From consumer insight to nutritional innovation

For CHEMI Nutra, the findings reinforce a growing focus on mind + mood as an interconnected area of nutritional innovation.

The company's portfolio includes AlphaSize®, its Alpha-GPC ingredient for choline and cognitive-health formulations, and SerinAid®, its phosphatidylserine platform for cognitive wellbeing and formulations addressing changing mental demands.

CHEMI has also expanded its approach beyond individual ingredients with CHEMI Complex for Women's Health, a turn-key, patent-pending formulation platform built around AlphaSize® and complementary nutrients.

The latter reflects an approach to women's health that considers how nutritional priorities can evolve, overlap and remain relevant as women move through different experiences.

"We believe the next opportunity in women's health is not simply giving consumers more ingredients to understand," Petteruti added. "It's taking what we learn about their lives and translating that knowledge into meaningful solutions. That's where consumer insight, ingredient science and thoughtful formulation can work together."

Lubrizol research reveals unmet need for targeted health and beauty solutions as consumers get proactive

WOMEN IN ASIA-PACIFIC are adopting increasingly proactive approaches to health, beauty and nutrition, although many feel underserved by current supplement markets, research has found.

The insights form part of a new White Paper from Lubrizol, a global leader in science-backed nutraceutical solutions specializing in microencapsulation platforms. Drawing from consumer research across China, Korea and Indonesia, it explores women's health, beauty and nutrition needs at different stages of their lives, identifying opportunities for innovation.

The research finds that women across Asia are prioritizing long-term wellbeing and quality of life over short-term fixes. It also shows that their concerns shift significantly with time, and identifies distinct needs at four different life stages:

- Active Life & Career (ages 20-39): Focusing on energy, confidence and momentum, women at this stage are highly open to prevention-led solutions, and willing to invest in products from brands they trust, the White Paper says.
- Family Planning & Motherhood (ages 20-39): This stage is characterized by a greater emphasis on reassurance, transparency and simplicity. Products that remove uncertainty and simplify decision-making have the greatest potential to earn trust.
- Midlife Transition (ages 40-55): Rather than pursuing transformation, women at this stage are often seeking reassurance that they can continue feeling like themselves through a period of change. Needs around balance, sleep, daily energy and skin resilience are common.
- Healthy Longevity (ages 55+) Women at this stage demonstrate the strongest willingness to invest in solutions that preserve capability, independence and quality of life.

Across all life stages, the research observes a consistent aspiration to live confidently, actively and independently for longer. However, opportunities for targeted innovation are also clear. In China, for example, 87% of respondents preferred solutions tailored to their current life stage, while 66% felt underserved by the options currently available to them.

Bernardo Medeiros, Global Vice President, Lubrizol Life Science, and Vice President, Latin America, Lubrizol, said: "Women's health and beauty needs are evolving. Across Asia Pacific, and particularly in China, we are seeing a fundamental shift from reactive care to proactive wellbeing. Consumers are no longer waiting for problems to emerge. They are investing earlier, seeking solutions that help them maintain confidence, vitality, and quality of life throughout every stage of their journey."

Other findings in the White Paper include:

- Beauty and nutrition are increasingly interconnected, as consumers embrace a more holistic view of wellbeing that links inner health with outward experience.
- Consumers in China had a particularly strong prevention-led mindset, with a proactive wellness index of 34%.
- Consumers in China prioritized beauty more highly than those in Korea and Indonesia, and also demonstrated more proactive beauty management behaviors



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- In China, the focus on beauty from within increased with age: the percentage of women considering supplement intake for long-term prevention rose from 33% at the Active Life & Career stage to 52% at the Healthy Longevity stage
- Visibility of results was a powerful driver of adoption, with 62% of respondents citing noticeable benefits as a key reason to continue using a product.

Bernardo Medeiros added: "Beauty, wellness and healthy aging can no longer be viewed as separate categories. Consumers increasingly expect integrated, science-backed solutions that support them through life's transitions, with benefits that are relevant, effective and trusted. Our challenge is clear: to innovate beyond products and create solutions that address the changing needs of women at every life stage. Those who succeed will not only meet today's expectations but help shape the future of women's wellbeing across the region."

Download the White Paper from: **https://tinyurl.com/32vddfcw**

www.lubrizol.com

Givaudan introduces Novaberin™ at SupplySide Global, responding to growing demand for metabolic health solutions

GIVAUDAN HAS ANNOUNCED the launch of Novaberin™, a patent-pending botanical ingredient designed to support metabolic health. Metabolic health refers to how effectively our bodies regulate energy, process nutrients and maintain homeostasis. In a six-month clinical study on Novaberin™ involving adults seeking support for healthy metabolic function[1], key outcomes included support for healthy weight management and retaining healthy blood glucose and lipid levels.[2] Formulated from Barberry (*Berberis aristata*), a natural of source berberine, and Amla fruit (*Phyllanthus emblica*), Novaberin™ delivers a multi-benefit approach in a convenient daily dose of 2 x 250 mg.

As the longevity market evolves, consumers are increasingly viewing metabolic health as a foundation for lifelong wellbeing. Today, 40% are actively using products to support cardiovascular health, metabolic health and weight management.[3] "Consumers are increasingly looking for solutions that go beyond weight management alone and support broader metabolic health goals," said Timothée Olagne, Head of Marketing, Health & Functional Business Unit. "Novaberin™ offers a clinically researched botanical that mirrors the convenience consumers increasingly expect, while supporting three areas of metabolic health."



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Novaberin™ begins with responsibly sourced botanicals from India. The ingredient comes with full traceability and identity documentation to support authenticity and quality assurance. Its carefully monitored origins help build trust in a growing market that is increasingly affected by adulteration concerns.

Suitable for capsules and tablets and available to customers in the US, Novaberin™ is the latest addition to Givaudan's growing portfolio of science-backed metabolic health solutions.

More information can be found at **https://healthnutritionhub.givaudan.com/ingredients/novaberin**

References:

1 Publication pending. Novaberin 250 mg twice daily (n=17) vs placebo (n=16); mean change from baseline at day 180, all p<0.05 vs placebo
2 Data on file.
3 NBJ Healthy Aging Report 2026

Calcium-rich whey permeate improves bone health in postmenopausal women, study finds

TWICE DAILY SUPPLEMENTATION with calcium-rich whey permeate supports the maintenance of bone mineral density in postmenopausal women, a clinical study has found.[1]

In the early menopausal years, women experience a rapid loss of bone mineral density, which is an indicator of bone health. This is partly due to a significant decline in oestrogen levels, which accelerates bone breakdown and increases the risk of osteoporosis.

The RENEW project (valo**R**ization of dairy side-streams to fight calcium d**E**ficits i**N** postm**E**nopausal **W**omen) set out to establish if calcium-rich permeate from whey production could be used as a bioactive food ingredient to counteract bone loss in postmenopausal women.

In the 12-month intervention study, participants were randomised to a placebo or 800mg of calcium, either from calcium carbonate or from calcium-rich whey permeate (taken alone or with inulin), divided into two doses per day. They all also received vitamin D, which contributes to the maintenance of normal bones.

In total, 316 postmenopausal women completed the study. In the group receiving whey permeate high in calcium (n=78), bone mineral density was maintained. Conversely, participants in the placebo group (n=75) showed a reduction in bone mineral density after 12 months. In addition, blood markers of bone turnover indicated a noticeable slowing of bone loss by the third month of the whey permeate intervention. Adding inulin to the calcium-rich whey permeate did not provide any additional bone health benefits.

The calcium-rich whey permeate supplement used in the study featured Arla Foods Ingredients' Capolac®, a calcium-rich milk-based ingredient, and Variolac®, a lactose-based ingredient. Commenting on the findings on World Osteoporosis Day (20th October 2026), the nutrition leader highlighted the potential of calcium-rich whey permeate at a time when the condition is increasingly prevalent.

Simon Bøge Riis, Nutrition Scientist (PhD) at Arla Foods Ingredients, said: "Globally, approximately one in five older adults has osteoporosis. It's especially common among postmenopausal women and across Asia, underscoring the need for effective nutritional strategies to support bone health. This research demonstrates that twice-daily supplementation with calcium-rich whey permeate can deliver remarkable improvements in bone turnover markers and maintain bone mineral density in postmenopausal women."

Valorisation of nutrition-rich side streams such as calcium-rich whey permeate also has benefits for more sustainable and efficient whey production. In addition, it offers the potential to develop innovative ingredients and product formats that are appealing and convenient for consumers.

Arla Foods Ingredients is currently developing a dried fruit bar containing 265mg of calcium in a 10g serving – equivalent to the amount in a glass of milk. This innovative, on-the-go format delivers an enjoyable consumer experience while offering the flexibility to tailor flavour profiles to regional preferences. The concept also supports circularity by incorporating solutions that help reduce fruit waste while utilising a calcium-rich whey permeate side stream.

Simon Bøge Riis added: "The development of affordable calcium-rich milk-based ingredients from whey production could be particularly relevant for developing countries, where calcium deficiency is an overlooked challenge. Such ingredients may also be incorporated into food products aimed at addressing multiple nutritional deficiencies, including inadequate calcium intake and poor bone health."



About the project

The RENEW study was conducted in Denmark by Zealand University Hospital and the University of Copenhagen, and funded by Innovation Fund Denmark. The project is a joint partnership between Arla Foods Ingredients, Arla Foods amba, the University of Copenhagen, Zealand University Hospital, Aarhus University and the USDA Western Human Nutrition Research Center. It aims to develop a new type of ingredient that combines milk calcium with whey permeate rich in lactose and the prebiotic dietary fibre inulin. It has been proposed that prebiotics may help create an intestinal environment that improves calcium absorption.

View the research at: https://ajcn.nutrition.org/article/S0002-9165(26)00148-6/abstract

Reference:

1 Inge Tetens, Sadime B. Kisi, Alexandr Parlesak, Sidse I.I. Rasmussen, Mai Ø. Cramon, Caroline F. Petersen, Danielle G. Lemay, Dennis S. Nielsen, Hanne C. Bertram, Henrik J. Andersen, Mette F. Hitz, 'Effects of a one-year calcium-enriched permeate supplement on bone health in post-menopausal females: The RENEW randomized controlled intervention trial' The American Journal of Clinical Nutrition, 2026, 101339

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Symrise presented new clinical evidence for skin and digestive health at SupplySide Global 2026

FOR THE FIRST TIME, the Care & Wellness Division of Symrise jointly presented its Health Active Solutions and Probi® offering in the Americas. Symrise unveiled new clinical evidence supporting skin beauty from within, and digestive health solutions, showcasing a portfolio that connects natural health actives, biotics, clinical research and formulation expertise. This integrated approach helps customers develop differentiated, science-backed solutions for human and pet health.

"We combine health actives, biotics and formulation expertise to turn robust science into differentiated solutions for our customers and consumers. SupplySide Global gave us a strong platform to advance this integrated proposition in the Americas and across global markets," says Isabelle Ducellier, Global VP Health at Symrise Care & Wellness.

New clinical results for Acerowell™

At the trade show, Symrise presented new clinical evidence for Acerowell™, its premium acerola-based ingredient for beauty-from-within formulations. In a randomized, placebo-controlled study of 108 women aged 45 to 60, daily supplementation with 600 mg for 12 weeks significantly improved skin radiance and translucency versus placebo. More than 80% of participants also reported improvements in skin luminosity, complexion and texture.

Symrise standardizes and vertically integrates the acerola powder for consistent quality and traceability. Manufacturers can use Acerowell™ in powders, gummies and functional beverages, combining formulation flexibility with clinically supported visible results from the first month.

Postbiotic Rham271h™ expands the possibilities for biotic innovation

With its postbiotic Rham271h™ on display, Symrise demonstrated how science-backed postbiotics can broaden formulation opportunities beyond live probiotics. Probi derives the ingredient from *Lacticaseibacillus rhamnosus* 6594. The inactivated strain retains biological activity, while its pH and heat resistance support stable, versatile applications. In-vitro research indicates effects on biomarkers associated with immune modulation, including increased levels of the anti-inflammatory cytokine IL-10, as well as support for gut barrier integrity.

At a daily dose of 10 billion TFU, Rham271h™ offers manufacturers a stable option for dietary supplements and functional foods and beverages. It also advances Probi's strategy to build a broader platform across prebiotics, probiotics, synbiotics and postbiotics supporting differentiated microbiome solutions for specific formulation and consumer needs.

Clinical study highlights targeted probiotic benefits for digestive health

Visitors explored new clinical evidence for LP299V® and LPGOS42™. It further supports Probi's strain-specific approach. In an eight-week randomized, placebo-controlled study of 100 healthy adults with occasional constipation, the dual-strain combination significantly improved key measures of digestive comfort and regularity, along with quality-of-life outcomes, versus placebo.

A post-hoc analysis provided further insight into participants who reported three or fewer weekly bowel movements at baseline, representing 80% of the study population. In this group, the dual-strain formulation achieved a significantly greater increase in weekly complete spontaneous bowel movements. The results support the development of targeted probiotic solutions and extend the evidence for LP299V® across digestive health, sports and active nutrition.

Together, the three showcases demonstrate how Symrise combines clinically supported ingredients, complementary biotic technologies and application expertise across Women's Health, Longevity, Digestive Health, and Sports & Active Nutrition. This integrated approach advances the ONE Symrise strategy and helps customers translate evolving health and wellness needs into differentiated products.

www.symrise.com
www.probi.com

EpiCor® postbiotic produces measurable changes in immune-related biomarkers within hours, placebo-controlled human clinical study finds

NEW RESEARCH PUBLISHED in the journal *Frontiers in Nutrition* finds that EpiCor® postbiotic produces measurable changes in immune-related biomarkers within three hours of consumption. Conducted by scientists at NIS Labs in collaboration with Cargill, the study offers new insights into the rapid biological processes behind the postbiotic's immune health benefits.

Backed by more than 15 published studies, EpiCor is one of the most extensively researched postbiotics available, with clinical studies in both adults and children. This latest research helps explain what happens in the body during the first few hours after consumption.

"Multiple clinical trials have previously shown that long-term consumption of EpiCor supports immune health," said Gitte Jensen, PhD, director of NIS Labs and lead investigator of the study. "What excites us is seeing responses at one, two and three hours, suggesting a coordinated biological response to a single dose compared with placebo. These early mechanistic responses after a single dose may contribute to the longer-term immune-supportive effects reported for this postbiotic."

Thirty healthy adults, age 18-60, completed the randomized double-blind placebo-controlled cross-over study. Participants consumed either a single 500 mg dose of EpiCor or placebo, with blood samples collected before consumption and over the following three hours to evaluate changes in select immune-related biomarkers. Key findings include:

- Rapid immune communication. Measurable changes in immune-related biomarkers were observed within three hours of a single dose, indicating that the ingredient begins interacting with the body's immune system shortly after consumption.
- Targeted immune response. Compared with placebo, EpiCor was associated with lower levels of several inflammation-related biomarkers within one-to-three hours. The findings suggest the postbiotic was associated with changes in biomarkers linked to specific immune pathways rather than prompting broad suppression of immune function.
- Immune cell activity aligned with previous clinical findings. Researchers observed changes in immune cell behavior that help explain how EpiCor may support immune health, building on earlier clinical studies showing benefits during seasonal immune challenges.

Postbiotics represent a relatively new area of nutrition science, and researchers are still working to understand how individual postbiotics interact with the body.

"Human research exploring what happens



during the first few hours after consuming a postbiotic remains limited," said Justin Green, Ph.D., scientific affairs director for EpiCor at Cargill. "This study helps fill that gap by identifying early biological responses associated with consumption of EpiCor, adding to our understanding of how interactions in the gut may influence immune responses and reinforcing why ingredient-specific research matters."

Building on two decades of clinical research, the study adds to the robust body of immune-relevant evidence supporting EpiCor. By illuminating the rapid biological mechanisms at play, Cargill continues to lead in postbiotic science, providing brands and consumers with greater insight and confidence in the ingredient's performance.

https:www.cargill.com

BioGaia publishes clinical study evaluating Protectis® Plus BABY in infants with colic

BIOGAIA ANNOUNCES THE publication of a clinical study evaluating BioGaia® Protectis® Plus BABY drops, the company's next-generation patented dual-strain probiotic formulation for infants. The study, published in the scientific journal Nutrients, showed that supplementation with the combination of *L. reuteri* Protectis® (*L. reuteri* DSM 17938) and *L. reuteri* BG-R46® reduced infantile colic, now referred to as infant distress syndrome under the Rome V criteria, compared with placebo.

The study included 50 infants with infantile colic who were randomized to receive either the probiotic formulation or placebo for 21 days. The primary endpoint was the change from baseline to Day 7 in total infant distress time, defined as awake fussing, crying and inconsolable crying.

After 7 days, total infant distress time had decreased by 43% in the probiotic group compared with 13% in the placebo group. This corresponded to a reduction of approximately three hours per day from baseline in the probiotic group. The difference between groups was statistically significant. In addition, at day 7 there was a 75% reduction of inconsolable crying which is defined as prolonged, unsoothable crying.

The improvement continued over the 21-day study period, and at day 21, total infant distress time had decreased by 62% in the probiotic group compared with 26% in the placebo group. The formulation was well tolerated throughout the study.

BioGaia® Protectis® Plus BABY combines BioGaia's well-established *L. reuteri* Protectis® strain with the company's new, patented *L. reuteri* BG-R46® strain. The product represents the next generation of BioGaia's Protectis® BABY drops and builds on more than 35 years of research into *L. reuteri* probiotics.

Gianfranco Grompone, Chief Scientific Officer at BioGaia, comments: "This first publication on clinical effects of BioGaia® Protectis® Plus BABY is an important milestone. The results show a significant reduction in infant distress already after seven days with the combination of *L. reuteri* Protectis® and *L. reuteri* BG-R46®. Particularly encouraging is the observed effect on inconsolable crying, one of the most challenging aspects of infant colic for both babies and their families. These findings provide important clinical evidence supporting the scientific rationale for our dual-strain formulation."

Theresa Agnew, President and CEO of BioGaia, comments: "BioGaia has conducted research in infant health for decades. With BioGaia® Protectis® Plus BABY, we are building on the scientific foundation of Protectis and continuing to advance our probiotic portfolio. These new clinical results are an important milestone as we introduce our next-generation product to more families around the world."

BioGaia® Protectis® Plus BABY has already been launched in the UK, Sweden, Finland and France and is soon being rolled out across additional markets.

About the study

The randomized, double-blind, placebo-controlled trial included 50 infants randomized to receive either the probiotic formulation or placebo for 21 days. Forty-eight infants, 24 in each group, were included in the analyses. The primary endpoint was change in total infant distress time from baseline to Day 7, measured using a scientifically validated diary. Secondary outcomes included crying time, behavioral regulation, maternal emotional well-being and safety.

The study, "Efficacy of a *Limosilactobacillus reuteri* DSM 17938 and BG-R46® Formulation in Predominantly Breastfed Infants with Infant Distress Syndrome: A Randomized Double-Blind Placebo-Controlled Trial," was published in Nutrients on October 22, 2026.

Read the full study in Nutrients: https://www.mdpi.com/2072-6643/18/21/3468

Read our press release about the launch of BioGaia® Protectis® Plus BABY here: **https://www.biogaiagroup.com/press/biogaia-ab-launches-biogaia-protectis-plus-next-generation-patented-probiotic-drops**

References:
Indrio F, Pecoraro L, Manni P, Verdesca V, Di Mauro A. Efficacy of a Limosilactobacillus reuteri DSM 17938 and BG-R46® Formulation in Predominantly Breastfed Infants with Infant Distress Syndrome: A Randomized Double-Blind Placebo-Controlled Trial. Nutrients. 2026;18(21):3468. doi:10.3390/nu18213468.

www.biogaia.se

TurtleTree and NIZO Food Research launch research partnership to advance precision-fermented lactoferrin for women's health

BIOTECHNOLOGY COMPANY TurtleTree and food-and-health research organization NIZO Food Research today announced a strategic research partnership to accelerate the scientific and clinical development of TurtleTree's precision-fermented lactoferrin platform, LF+, for women's health. Under the partnership, a dedicated NIZO research team will work alongside TurtleTree on a multi-year program spanning clinical studies, health-claim substantiation and product formulation. Alongside the partnership, TurtleTree also announced that it is relocating its global headquarters to the Netherlands.

The partnership pairs TurtleTree's proprietary precision-fermentation technology with the scientific depth of one of Europe's foremost food-and-health research institutes. The collaboration focuses on advancing LF+ for women's health applications, with an emphasis on healthy aging and (peri)menopause, validating and substantiating next-generation functional ingredients through rigorous clinical science.

TurtleTree's work will be based at the Food Innovation Park in Ede, in the heart of the Dutch Food Valley, giving the company access to Europe's largest independent food-grade pilot facilities and a dense ecosystem of food, biotech and fermentation innovators.

"This partnership lets us push LF+ development further and faster in women's health, and gives us a real foothold in Europe," said Fengru Lin, Founder and CEO of TurtleTree. "Instead of spending years building a research operation, we can draw on a dedicated NIZO team from day one. Some of the best scientists in the field, working directly on our platform. The Netherlands gives us the science, the infrastructure and the access to the European market we need to move at the pace this category demands.

For NIZO, the collaboration reflects a deliberate shift in how the institute works with fast-moving startups and scale-up companies. "We want to make our scientific capabilities accessible to the most ambitious innovators, not only to large established players," said Nikolaas Vles, CEO NIZO. "By being an extension of a scale-up like TurtleTree, we help promising technologies reach the market faster and more rigorously. TurtleTree is exactly the kind of partner this model is built for, and a strong example of what it can achieve.

TurtleTree's establishment in the Netherlands was supported by Oost NL, the regional development agency for East Netherlands, and the Netherlands Foreign Investment Agency (NFIA), whose combined efforts helped facilitate the company's arrival and its access to the resources, facilities and networks of the Dutch innovation ecosystem. Their involvement underlines the strategic importance of international partnerships in strengthening the Netherlands' position as a leading global centre for precision fermentation.

"The Netherlands offers international companies a strong combination of scientific expertise, research infrastructure and access to the European market," said Hilde van der Meer, Commissioner at Netherlands Foreign Investment Agency (NFIA). "TurtleTree's decision to establish its global headquarters here shows the value of bringing these strengths together. Its partnership with NIZO also demonstrates how international companies can connect directly with the Dutch innovation ecosystem to accelerate research and bring new technologies to market."

www.nizo.com
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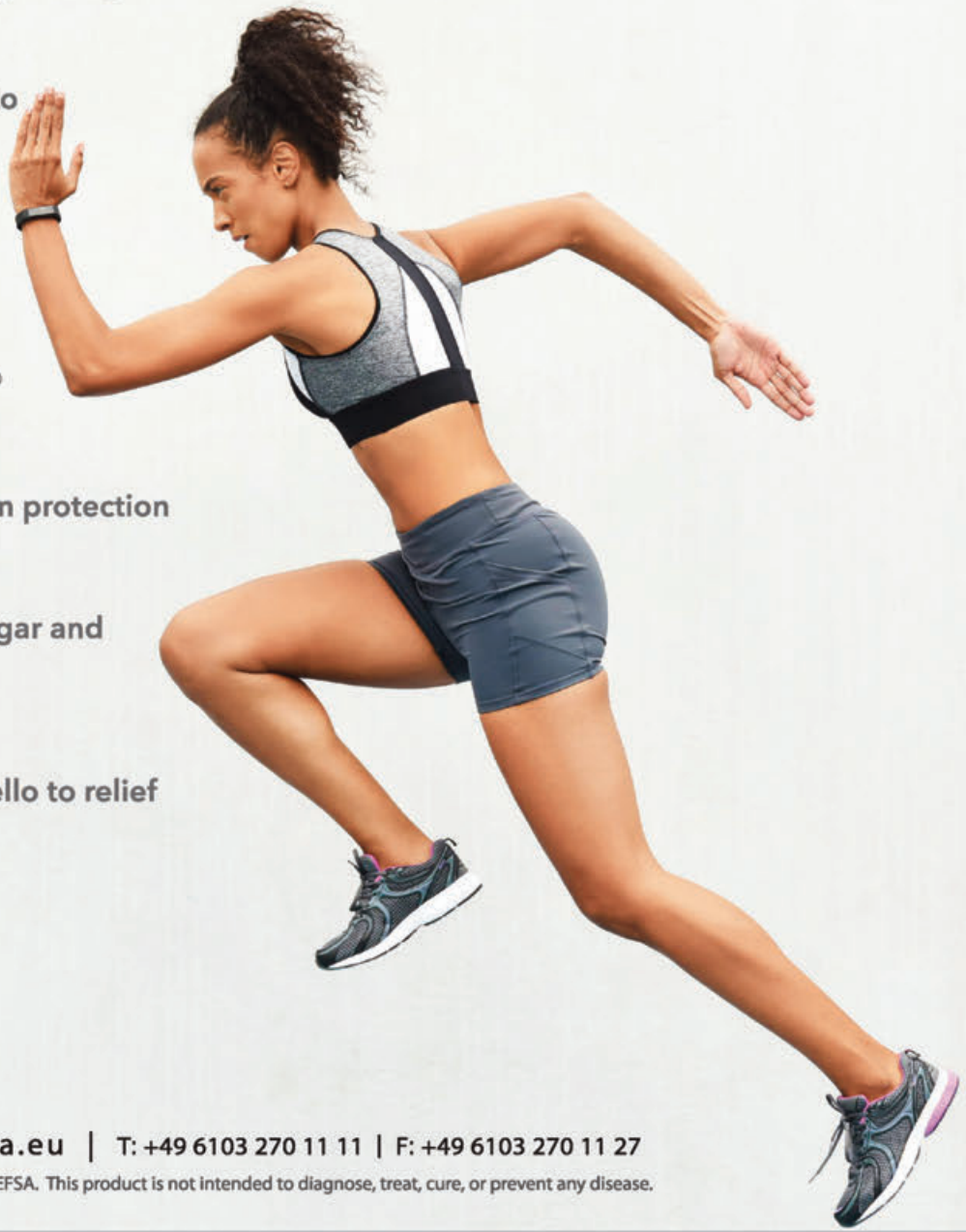
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Introduction 2027



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United Kingdom	9%
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Canada	3%
Italy	4%
Australasia	2%
Switzerland	1%
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Meat	6%

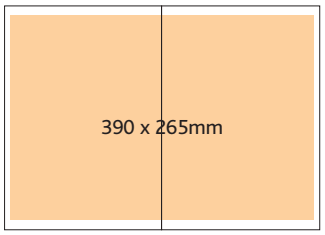
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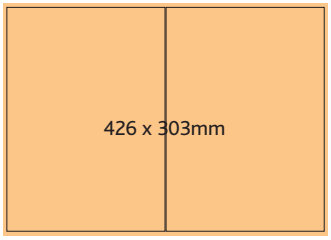
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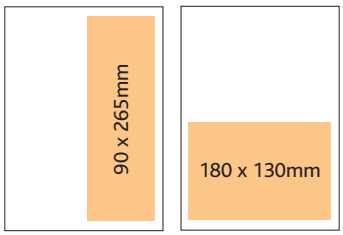




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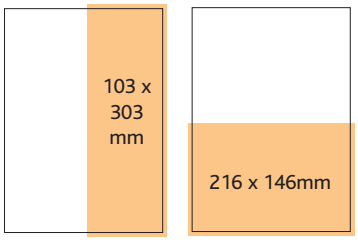
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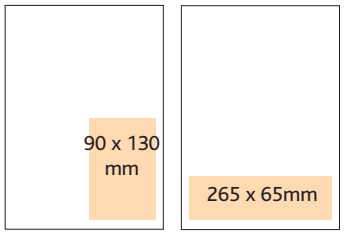




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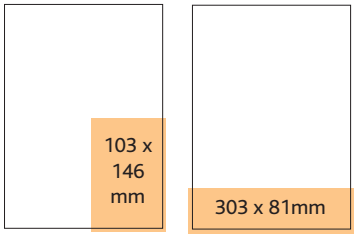
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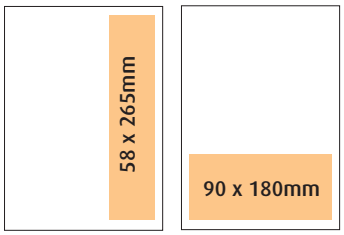




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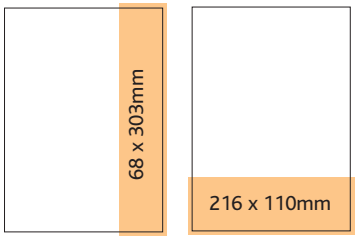
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Editorial Calendar 2027

FEBRUARY 2027

Alternative proteins
Savoury ingredients
Stabilizers
Capsule technology
Healthy snacking
Innovative colours
GLP-1
Natural sweeteners
Sports nutrition
Emulsifiers
Clean labels
Sustainability
Proteins
Beauty from within
Sauces & dressings
Organic superfoods
Supercritical extraction techniques
Fruit flavour profiles for beverages
Supply chain transparency
Non-dairy milk ingredients
Non-alcoholic beverage ingredients
AI developments in food & beverage
Antioxidants & heathy aging
Plant-based innovations
Probiotics & gut health

TRADESHOW PREVIEWS:
17-18 February **Nutraceuticals Europe 2027**
23-26 February **ANUGA FoodTec 2027**
15-19 March **GULFOOD 2027**

Deadline: 28 January 2027

MAY 2027

Weight management
Joint health
Infant formula ingredients
Stress management
Muscle recovery
Improving digestion
Ice cream & frozen dessert
Vegetarian capsules
Plant-based ingredients
Cognitive health
Collagen advancements
Lipid Nutrition
Boosting immunity
Well-being
GLP-1
Bone health
Eye health
Muscle recovery
Probiotics
Enhancing texture
Salt replacements
Mediterranean diet
Algae
Ancient grains
Nutra developments
AI applications in food & beverage
Mushroom ingredients & applications
Adaptogens (replacing antioxidants)
Women's health & menopause nutrition

TRADESHOW PREVIEWS:
18-20 May **Vitafoods Europe 2027,Barcelona**
11-14 July **IFT 2027, USA**

Deadline: April 30 2027

AUGUST 2027

Alternative proteins
Health benefits of pulses
Sports nutrition
Weight loss management
Enhancing memory
Sleep improvement
Stress-relief ingredients
Proteins
Sustainability
Joint healthHealthy ageing
Gut health
Eye health
Sugar reduction
Algae
GLP-1
Clean label
Well-being
Healthy aging, longevity and mobility
The world of AI in food & beverage
Enhancing flavour in plant-based foods
Nutraceutical delivery systems
Cardiovascular health
Natural taste balancing solutions
Plant-based beverage ingredient

TRADESHOW PREVIEW:
October **SupplySide Global 2027**

Deadline: 30 July 2027

NOVEMBER 2027

Dietary fibres
Chocolate ingredients
Capsule technology
Beauty from within
Carbon-neutral products
Healthy snacking
Savoury ingredients
Plant-based alternatives
Proteins
GLP-1
Colours
Sweeteners
Gummies
Sports nutrition
Lipid nutrition
Proteins
AI and its applications in food & beverage
Anti-allergenic ingredients
Functional beverage concepts
Enhancing immunity
Food & nutrition trends 2028
Healthy aging, longevity and mobility
Sodium reduction
Superfoods & nutraceutical ingredients

TRADESHOW PREVIEW:
30 Nov - 2 Dec
Food Ingredients Europe (FiE) 2027

Deadline: 12 November 2027

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