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BUSINESS

GULF & MIDDLE EAST

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Food Business Gulf & Middle East is designed to serve the fast growing Food, Fresh Produce, Ingredients, Bakery, Hotel, Hypermarkets, Restaurants & Catering industries in the Gulf and Middle East region by providing the expert information to our readers in our four comprehensive issues in a year. It is circulated throughout Middle East region and worldwide in addition to the extra distribution at various food, catering & hotel events, fresh and perishable shows. The magazine provides editorial coverage on a wide range of topics which are of interest to industry professionals.

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CALLEBAUT LAUNCHES THE NXT GENERATION OF CHOCOLATE

Following a series of successful launches around the world including Saudi Arabia, Callebaut, the chocolate maker preferred by artisans and chefs around the world, officially introduces 'Callebaut NXT', the 100% plant-based dark and milky tasting chocolates, guaranteed free from any traces of dairy in the United Arab Emirates (UAE).

To mark the launch of NXT, the Callebaut team held an event at The Chocolate Academy on 7 March 2023 for chefs and artisans, where seven renowned chefs from across the globe came together to create a feast of the senses with their exquisite chocolate creations.

Using the NXT Chocolate, chef Marike Van Beurden, Pastry

& Chocolate Consultant, put together an ensemble of creative vegan treats including Matcha & NXT Cookies, Apricot & M_LK NXT chocolate plated dessert, Mango-lime-ginger & M_Lk chocolate tarts, vegan brownies, exotic travel cakes and bonbons. Moreover, chefs Romain Renard, Panagiotis Samaras, Laura Gonzalez, Bertrand Le Gallic, Vincenzo Delgiudice, Fadi Kurdi and Evah Reaidy also presented their takes on a slew of vegan desserts.

To shed light on the vegan movement, Callebaut engaged nutritionist Tina Chagoury, who explained the benefits of veganism.

With its foray into the UAE

market through Callebaut's official partner EMF Emirates, Callebaut NXT promises great taste, creamy texture, smooth mouth feel and quality.

To help chefs & artisans, who frequently receive requests for vegan, plant-based, allergen-free and planet-friendly desserts and chocolates, the NXT range not just offers worry-free alternatives for traditional and new recipes, but also how-to guides, inspiration and tips and tricks through the new NXT digital platform—introduced with the support of R&D experts and an impressive line-up of chefs and artisans who've developed and tested the chocolate throughout several recipe applications.

ICCA DUBAI CHEFS SHOWCASE EUROPEAN ORGANIC PRODUCTS IN EXCLUSIVE COOKING EVENT FOR EU ORGANIC



An exclusive Product Presentation and Live Cooking Event took place on Thursday 23rd February 2023, at 16:00 pm, at the International Centre for Culinary Arts – ICCA Dubai,

within the framework of the EU financed campaign "EU Organic Deal".

Participants from the Horeca sector, distributors, and journalists had the opportunity

to familiarize themselves with superior-quality, European organic products from Bulgaria, Romania, and Greece. Meanwhile, Chefs of the ICCA Dubai introduced the guests to the numerous benefits of European organic products like fruit juices, olive oils, sunflower oil, cheese, curds, coffee, tea, mate, spices, bread, pastry, dried fruit and honey.

"EU Organic Deal" is an EU financed campaign that promotes organic products from Bulgaria, Romania, and Greece in the United Arab Emirates and the United Kingdom aiming to raise awareness regarding their advantages and exceptional nutritional values, therefore increasing the consumption of these extraordinary products.

HOTPACK TO BUILD SAR 1 BILLION PACKAGING PRODUCTION PLANT IN KSA OVER SEVEN YEARS

Hotpack Global, the UAE-based global leader in food packaging products, has announced its plan to build one of the world's largest sustainable packaging plants at an estimated investment of SAR 1 billion in the Kingdom of Saudi Arabia. The company has signed a Memorandum of Understanding (MoU) for this investment with the Kingdom's Ministry of Investment and the Ministry of Industry and Minerals, respectively.

The agreement has been signed at a grand ceremony held at the Ministry of Investment headquarters in Riyadh in the presence of HE Khalid Al Falih, Minister of Investment; HE Osamah Alzamil, Deputy Minister of Industry and Minerals; HE Fahad Alnaeem, Deputy Minister of Investment; Mr. Abdul Jebbar PB, CEO and Group Managing Director of Hotpack Global, and senior officials from both the ministries. The delegation from Hotpack Global included Suhail Abdullah, Group Vice President; Dr. Mike Cheetham, Global Business Development Director, Suhas KA, Operations Director - KSA, and Muhammed Sherief, General Manager – KSA.

The investment is in line with Hotpack's vision to become the world's top producer of packaging products for the food, agriculture and retail industries. The project is envisaged in multiple phases and upon completion, the project will address the expected surge in demand for sustainable packaging in the Kingdom. It will also augment the country's food security plans and support a robust food system.

Hotpack will develop the state-of-the-art manufacturing plant, spreading over a land of 2.4 million sq.ft, with advanced machinery and by deploying industry 4.0 technologies that integrate Internet of Things (IoT), Artificial Intelligence (AI), machine learning, cloud computing and analytics into its production and operation system.

The project will enable Hotpack to achieve scalable capacity while focusing on sustainability and innovation. This investment also aligns well with its Vision 2030 in several aspects. With an expected employment to the tune of 1200, the project will also help Hotpack to acquire a significant market share in Saudi Arabia.

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FARM FRESH REVOLUTIONIZES FOOD INDUSTRY WITH INNOVATIVE APPROACH AND FARM-TO-FORK VISION

Introducing a fresh and innovative approach to the food industry, GMG's Farm Fresh is proud to announce its revolutionary transformation over the last few years. Starting its journey as a butchery shop 45 years ago, GMG has grown into a leading food distributor and manufacturer with Farm Fresh as its flagship brand. Its growth and success have been driven by its a commitment to quality, passion for innovation, and ability to adapt to changing customer preferences, making it a trusted partner of the food service industry and the retail segment, delivering quality, nutritious food items to consumers.

Farm Fresh's dedication to delivering high-quality products

is evident in their process from beginning to end. By beginning with comprehensive market analysis and thorough customer research, they've been able to develop an innovative approach to the food industry that sets them apart. From the initial stages of brand development and manufacturing, Farm Fresh has transformed the frozen meat and poultry category.

As they continue to expand their portfolio, Farm Fresh now offers a diverse range of products, including frozen vegetables, sauces and condiments, spices and herbs, canned fruits and vegetables, and much more. All of their products are backed by innovative processes designed

to make consumers' lives easier and more convenient. At Farm Fresh, it's not just about delivering delicious and nutritious food, it's also about enhancing the overall experience of cooking and dining.

Mohammad A. Baker, Deputy Chairman and CEO of GMG, said: "Our farm-to-fork vision enables us to bring value to our consumers. We are proud that today GMG has grown into a leading food distributor and manufacturer with a vast product portfolio, giving access to nutritious food. As the F&B industry continues to evolve, Farm Fresh remains at the forefront of innovation, bringing a fresh approach to the industry and empowering consumers to adopt a healthier lifestyle."

TECHNOLOGY TO REPRESENT CENTRAL FOCUS AT 30TH EDITION OF ARABIAN TRAVEL MARKET IN DUBAI

Representatives from more than 80 of the world's leading travel technology companies are preparing to exhibit at Arabian Travel Market (ATM) 2023, which

will take place at Dubai World Trade Centre (DWTC) from Monday 1 to Thursday 4 May.

Over 2,000m² of exhibition space will be dedicated to industry

technology during the 30th edition of ATM, representing a 54.7% increase in sector participation compared to last year's show. ATM 2023's Travel Tech space will also be supplemented by a brand-new Sustainability Hub, which will shine a spotlight on the latest environmentally responsible travel trends and innovations.

The ATM Travel Tech Stage sponsored by Sabre, will host a selection of in-depth panel discussions that will

explore how modern innovations such as artificial intelligence, big data and Web3 are enabling seamless operations, professional development, payments, accessibility, sustainable travel and enhanced customer experiences.

ATM 2023 will feature a Sustainability Hub for the first time in the show's history. This space will offer a venue for sessions dedicated to the latest sustainable travel trends and innovations while providing the setting for the ATM 2023 Start-up Competition – an event hosted by conference partner Plug and Play, which will see entrepreneurs go head-to-head in a 'Sustainable Tech Pitch Battle'.



KITOPi ANNOUNCES ACQUISITION OF LEADING F&B GROUP AWJ INVESTMENTS

Kitopi, the world's leading tech-powered, multi-brand restaurant, announced that it has acquired leading F&B group - AWJ, in one of the largest F&B transactions of the GCC region.

A highly successful Dubai-founded F&B group, AWJ is the holding company behind hugely popular delivery and dine-in brands such as Operation Falafel, Catch 22, Awani, Sushi Do and more. AWJ's concepts were created and developed by Co-Founding Director Manhal Naser, who acted as the group's CEO since incorporation, and Co-Founding Director Tamer Bazzari, who chaired the corporate vehicle of the fund and

was the Investment Manager.

The group opened its first outlet in Dubai in 2014, and has since expanded its portfolio to more than 10 brands (delivery and dine-in), and 32+ outlets across the UAE and KSA. Today, Operation Falafel serves over 2 million customers globally per year.

AWJ also has franchises in New York and London, and is headquartered in Dubai, UAE with over 1300+ employees.

The acquisition announcement comes as part of Kitopi's ongoing strategy to invest in and grow much-loved regional brands and take them global, as it continues to dominate the F&B space. Primarily known as

a cloud kitchen, today Kitopi defines itself as a tech-powered, multi-brand restaurant with over 100 brands, operating in 200+ locations across 5 markets.

The deal, which occurred for an undisclosed amount, will see the AWJ group of brands eye expansion in new markets where Kitopi has a solidified presence and a vast network of locations, unlocking new opportunities and access to more customers.

AWJ will also benefit from Kitopi's pioneering tech SKOS (Smart Kitchen Operating System), one of the founding factors for the company's early success.

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DELIVEROO AND DELIVERECT DISCUSS LATEST TECHNOLOGY TRENDS TO EMPOWER THE F&B INDUSTRY

As part of their mission to highlight developments in the food industry and support local restaurants, Deliveroo and Deliverect hosted a panel discussion featuring Seham AlHusaini, General Manager of Deliveroo, Naji Haddad, MENA General Manager at Deliverect, and Abdulrahman Al Omar, Managing Partner at Thinnies.

During the course of the event, the speakers discussed the important role that technology plays in helping local restaurants optimise their delivery operations, maximise profitability in the delivery-only model, keep customers loyal in the digital food space and the food trends in 2023.

Naji Haddad, MENA General

Manager at Deliverect, said “Now more than ever, restaurants are realising the integral role technology is having on the food industry. We saw it before the pandemic when online delivery started increasing, and then the pandemic accelerated it tenfold. The majority of restaurants started adopting delivery, online ordering, and digital menus. While technology has already improved several aspects of the restaurant industry, there is still much more to be done. The future of food is digital, and technology will continue to be a key driver in achieving growth, profitability, and improving customer experience.”

Seham AlHusaini, General

Manager of Deliveroo, said: “As leaders in the food technology space, Deliveroo is proud to have spearheaded a variety of tools that have made life that much easier for restaurants, customers, and riders. With years of experience in the regional and international food industry, Deliveroo has long been at the forefront of the digital food delivery space, recognizing food trends and paving new strategies on how to keep customers engaged. We look forward to surprising and inspiring customers to keep trying new foods, while continuing to work with riders and restaurant partners that make Kuwait such an outstanding food hub.”

LORYMA EXPANDS EXTRUDATE PORTFOLIO WITH PLANT-BASED PROTEIN BALLS

Ingredients specialist Loryma is expanding its Lory® IsoCrisp range with a variant made from wheat. The extruded crispies are low in sugar but rich in protein. This means they not only add a pleasant crunch to biscuits, bars, muesli and granola, as well as other snacks, but also provide a plant protein boost. The new Lory® IsoCrisp variety is made from European wheat, has a neutral taste and can be individually flavoured.

The crispy, round extruded product consists of wheat protein, wheat starch, rice flour and cocoa powder. As a result, the new variant contains little sugar and saturated fatty acids, and has a protein content of 71g per 100g.

The vegan, tasteless crispies are suitable for end products in the high-protein, low-carb and sports nutrition segments, among others. Manufacturers

can also offer the protein-rich crispies, which have a diameter of about two millimetres, in their original form – for example, as crunchy highlights for muesli.

Marjolijn van Daalen, Research & Development Manager Extruded Products of the Crespel & Deiters Group, points out:



“Health awareness among the population is growing steadily, and high-protein and plant-based are very important trends for consumers. Manufacturers can meet all these needs with our new Lory® IsoCrisp offering, and add a delicious crunch to confectionery, cereals, baked goods and healthy nutritional products.”

BC30™ SUPPORTS PROTEIN ABSORPTION FROM PLANT SOURCES, STUDY SHOWS

Leading spore-forming probiotic BC30™ improves protein absorption from plant sources, a new clinical study has shown. The findings are significant for food and beverage manufacturers in Asia Pacific because they demonstrate potential to offer an additional benefit in plant-based products containing BC30. There may be particular opportunities for products targeting seniors – who typically require higher protein intake to maintain muscle mass – as well as vegetarians, vegans and athletes.

In Asia, the popularity of plant-based food and beverages has grown in recent years with an 18% CAGR in new product launches with plant protein between 2017 to 2022. In Australia, it's 23%. In Asia Pacific, 3 out of 4 consumers prefer plant protein as a source of protein, and 79% of women indicate a higher preference for plant protein over dairy protein, compared to 70% of men.

The double-blind randomised study was carried out over a two-week period, with 30 healthy women between the ages of 50 and 70 taking part. Each consumed a daily plant-based beverage containing 20g of protein, sourced from a combination of pea and rice proteins, either with or without 1 billion CFUs (colony-forming units) of BC30 (Bacillus coagulans GBI-30, 6086®).

After the final dose, blood samples were analyzed for amino acid concentrations. Over the whole course of the

measurement period, subjects in the BC30 group showed significantly higher values for total amino acids and total essential amino acids, as well as significantly higher than average levels of certain individual amino acids. The BC30 group also showed higher maximum concentrations of total amino acids, essential amino acids, and several

individual amino acids.

Part of Kerry's ProActive Health Portfolio, BC30 is a patented spore-forming probiotic which can be used in a range of food and beverage products. It is backed by over 25 published papers, including a 2020 study demonstrating that it supports protein absorption from milk protein concentrate.

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SABIC'S TRUCIRCLE™ USED BY GAROFALO IN THE FIRST MONO-MATERIAL PASTA PACKAGING

SABIC, a global leader in the chemical industry, has announced the successful roll-out of another project as part of its TRUCIRCLE™ program to accelerate the implementation of a circular plastic economy. Garofalo, a major Italian pasta manufacturer, has introduced a novel packaging made by GT Polifilm and Polivouga using SABIC's certified circular polypropylene (PP). The sustainable material is derived from advanced recycling, and converted into a Biaxially Oriented PolyPropylene (BOPP) film for this application, which is the first pasta mono-PP packaging material in the market containing 30 percent of post-consumer recycled (PCR) content. Garofalo introduced the first pasta bags made from the new packaging to Italian stores in March 2023.

The PCR content in the bags is based on post-consumer used plastics, which is turned into pyrolysis oil in an advanced recycling process. At SABIC, the pyoil is used in the production of new polymers with the same specifications as virgin plastics from conventional feedstock. Polivouga, a vertically integrated Portuguese manufacturer of flexible films for packaging products uses a SABIC® PP 525PC grade from SABIC's TRUCIRCLE portfolio of certified circular polymers to produce the basic BOPP film for the new pasta packaging solution. GT Polifilm, a specialist in the production of flexible polypropylene products for automated packaging in the food industry, adds a cast PP film to the BOPP film to create a mono-material structure, which is then

converted to tailor-made pasta bags. Once used, the mono-PP bags can easily be recycled again in existing PP waste streams.

Abdullah Al-Otaibi, General Manager, ETP & Market Solutions at SABIC says: "For such solutions to work in the long-term, the partners in the material value chain must closely collaborate. With our TRUCIRCLE program, we are pushing for innovative business models to transform our industry from a linear to a circular one and help prevent the valuable material of end-of-life plastic applications from being wasted. Within a year, this remarkable joint project has shown what can be achieved to make this vision come true if all players work together to maximize post-consumer plastic recycling and sustainability."

CAFFÈ CAGLIARI CHOOSES MICROLINE TO BUNDLE ITS PACKS OF COFFEE



Microline is a Bologna-based company specialising in the design and development of

packaging solutions for Tissue products, with considerable expertise also in applications for the secondary packaging of consumer packaged goods, including food and beverage products. It is precisely in this sector that it developed the relationship with Caffè Cagliari, a premium coffee roasting company headquartered in Modena, which had special packaging needs for its line of 500 gram and 1 kilo

bags of coffee.

Microline developed a special version of its ML800, a bundling machine using shrink-wrap film. The unit in use at Caffè Cagliari is able to process both 500 gram and 1 kilo bags. It is able to package between 25 and 30 bags per minute, during which time it produces up to 5/6 bundles. It is a machine that is fully in line with the dictates of Industry 4.0 and whose features include the MRA remote assistance system with the possibility of adding an advanced network of sensors for monitoring energy consumption. Everything is therefore geared towards maximising efficiency and savings for customers.

NESTLÉ'S LATEST PLANT-BASED BEVERAGE COMBINES OATS AND FAVA BEANS

Nestlé has unveiled its latest innovation for its plant-based products: a milk alternative that combines a unique blend of oat and fava, with a strong nutritional value.

By combining oat and fava, the plant-based milk alternative has 5g of protein per serving, and all the amino acids needed in the diet to ensure high-quality protein. Additionally, the mild, nutty taste and smooth texture coming from the fava and oat, makes the beverage perfect for

any time of day on its own, or in a smoothie, or with cereal.

Christoph Bolten, Head of the Nestlé Institute of Food Sciences said: "Fava beans are a great source of protein, which is why we are exploring their use in different types of plant-based alternatives. While developing the product, we selected the fava bean variety, that would bring the most complete nutritional elements to the recipe."

Nestlé offers a wide range

of plant-based products made from ingredients such as peas, rice, oat, soy, coconut, and almonds. Nestlé's R&D experts are also exploring the next generation of plant-based ingredients including fava while considering different functional, nutritional, and sustainability aspects. The company's plant and food scientists work to breed and select nutritious, tasty pulse varieties best suited for different plant-based alternatives.

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GREEN COLA PROVES ITSELF AS “PRODUCT OF THE YEAR GULF 2023”

Green Cola, a healthy carbonated soft drink developed by Green Beverages, has won Product of the Year Gulf, in the category of Green Beverages for the Year 2023. The event, which was organized by Product of the Year Gulf, took place on March 16th at Royal Mirage in Dubai.

The award was received by Periklis Venieris, Founder/CEO and Armand Courson, Managing Director Middle East; in which Green Cola has been recognized for its innovation and ingredients.

The product is Greek in origin, currently present in 52 countries, and its Middle East share has scored a 25% of the global

company shares, with plans to expand in the Middle East and Africa. The CSDs demand has proven to be stronger than other packaged beverage categories with Youngsters 15-30 are the main source of volume. The global market is currently estimated at € 270 billion.

Commenting on the award, Courson said: “We are very pleased to receive this award, which demonstrates Green Cola as an innovation in the CSD industry. Launching this product has been a strategic decision and reflects our mission in refreshing our consumers with the most refreshing, innovative & natural

soft drinks. With a steady growth both in sales and market share, Green Cola has established its position in the soft drinks category.”

In 2012, Green Cola was launched as the first carbonated soft drink to be sweetened by stevia, combining a great taste with zero calories, no aspartame, no sugar, no artificial sugar substitutes or other health-compromising ingredients, no phosphoric acid and with caffeine extracted from green coffee beans. The uniqueness, innovation and authentic taste of Green Cola succeeded in gaining the preference of consumers.

SAUDI ARABIA TO SERVE UP NEW GLOBAL FOOD AND HOSPITALITY MEGA-EVENT THIS Q4 IN RIYADH



Saudi Arabia will fast-track its ambitions to become the undisputed food trade and hospitality capital of the Middle East & North Africa with the launch later this year of InFlavour – a ground-breaking new food sector platform created by Saudi Arabia’s Ministry of Environment, Water & Agriculture (MEWA) and Tahaluf, the entity behind

the country’s highly successful LEAP technology exhibition. As Saudi Arabia embraces a multi-trillion-dollar national development drive that is heavily reliant on leveraging its booming tourism and hospitality sectors, InFlavour will serve as a gateway for local, regional, and global food manufacturers to reach industry buyers and consumers across the most populous country in the Arabian Gulf, as well as footprint growth markets in Africa, Asia, and Europe.

In line with its purpose to power the Kingdom’s place at

the top table of the international hospitality industry, InFlavour will also spotlight major Saudi Arabian infrastructure projects poised to elevate the country’s strategic potential to transform the way food is grown, transported, and traded across increasingly complex and competitive international supply chains.

In addition to an expansive network of the world’s largest food and beverage producers, distributors, and traders displaying products on the show floor, InFlavour will also welcome a Michelin star-studded menu of celebrity chefs, and trend-setting culinary innovators in a multi-track conference programme from October 29-31 at the Riyadh Exhibition and Convention Centre, Malham, Saudi Arabia.

ARAMTEC COMMITS TO FULL DIGITAL TRANSFORMATION

Aramtec, one of the UAE's longest-established food service companies, is delivering on a year-long strategy to become cloud-based and digitally empowered through solutions from global technology company SAP SE (NYSE: SAP). To fully automate and enhance Aramtec's import of premium food brands and goods, as well online store Butchershop.ae, the company has committed to a transformation journey including an upgrade of its ERP landscape.

The new Aramtec strategy, titled

Project Phoenix, will enhance the company's food services it delivers to hotels, restaurants, airlines and other commercial F&B outlets. With a need for flexibility, agility, and scalability, Aramtec's adoption of cloud computing using RISE with SAP and S/4HANA solutions met all these criteria while delivering a tailored strategy based on SAP's deep expertise in supply chain management and food service industries.

Aramtec's move to the cloud was accelerated through its

adoption of RISE with SAP, which provides a pathway to the cloud for any customer, irrespective of starting point or complexity. The offering goes beyond a technical migration to the cloud, instead enabling adaptable and sustainable transformation of a company while realizing a faster time-to-market for new capabilities and applications.

The implementation of the SAP solutions at Aramtec, which will also include SAP Payroll, is expected to go live in the third quarter of 2023.

LISTEN-UP LOTUS BISCOFF® LOVERS: FIVE GUYS ANNOUNCES NEW MIX-IN

Five Guys has announced the debut of Lotus Biscoff® Caramelized Cookie Crumble as the newest milkshake mix-in in all branches across the United Arab Emirates. Five Guys is known for its abundance of combinations to curate truly unique milkshake flavours, and this latest addition is sure to be appreciated by thousands in the UAE.

"We're thrilled to announce the addition of Lotus Biscoff® to our mix-ins menu," said

Marc Smart, Area Manager at Five Guys. "We're glad to be able to offer our customers a local-favourite and can't wait to see the creative flavours that will come out of it," he added.

Five Guys is known for its fresh burgers, hand-cut fries, and unlimited toppings and the milkshakes have always had a special place in our customers' hearts. Lotus Biscoff® buffs can visit any of the 13 Five Guys branches across the UAE and add new mix-in to their milkshakes.

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NEW CARROT-BASED EXBERRY® COLOR ENABLES RED MEAT ALTERNATIVES TO CHANGE SHADE DURING COOKING

A breakthrough development from EXBERRY® Coloring Foods supplier GNT means manufacturers can now create clean-label red meat alternatives that change color during the cooking process.

Made from carrots and emulsifier-free, the EXBERRY® Compound Red range allows plant-based products to imitate the color of raw meat before appearing to become rare, medium, or well done when heated.

The range can be used in combination with different EXBERRY® Coloring Foods to create tailor-made shades for meat

substitute products including burgers, sausages, minced meat, and meatballs.

The innovation is the result of GNT's investment in and collaboration with ETH Zurich spin-off company microPow, which developed a patented technology to encapsulate ingredients. The natural encapsulation solution melts when the temperature increases to release the color concentrate.

Developing meat substitutes that match up to modern consumer expectations has previously proved a significant challenge for manufacturers.

Research shows that replicating the appearance and behavior of animal protein is essential to maximize plant-based products' appeal, particularly among those who also eat meat. However, 69% of consumers worldwide also say it is important that meat substitutes are naturally formulated.

With the launch of EXBERRY® Compound Autumn Red and EXBERRY® Compound Fall Forest Red, it is now possible to create highly realistic red meat alternatives while supporting the clean and clear ingredient lists that shoppers demand.

AED 200 MN MANUFACTURING FACILITY ANNOUNCED AT DUBAI INDUSTRIAL CITY IN LINE WITH UAE FOOD SECURITY AGENDA

Bolstering the UAE's commitment to build a self-reliant food security program, Silver Line Gate Group (SLG) is constructing a new manufacturing, warehouse and corporate offices facility, spanning 1.37 million sq. ft., at Dubai Industrial City, a member of TECOM Group.

SLG Group is one of the Middle East's leading suppliers of milk powder, including leading brands such as Lancy, Gardo, Silva, SLG, Sama, Zain, Al Sahem, etc. The AED 200 million manufacturing facility is set to open at Dubai Industrial City in 2025.

SLG Group's manufacturing base joins a growing number of food manufacturers, processing and exporting foodstuffs globally from the industrial hub, boosting foreign trade and supporting the Dubai Economic

Agenda D33. The new facility will meet the demands of B2B and B2C customers across the GCC, African market and Southeast Asia, and support the distribution of wholesale bakery products such as butter, whey powder, and vegetable shortening to bakeries, restaurants, ice cream manufacturers, hotels, caterers and other users across the UAE.

SLG Group's new facility is designed to meet the growing market by using advanced technologies with fully automated machinery and equipment and will create more than 300 jobs. Dubai's strategic location, paired with Dubai Industrial City's extensive transport network that includes land, air, sea, and soon Etihad Rail, will provide SLG Group unrivalled and convenient access to key markets.



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BURGER INDEX RAISES US\$1.3M SEED FUNDING TO EXPAND INTO THE GCC

Spanish AI startup, Burger Index, announced it has raised US\$1.3 million in seed funding to initiate its expansion in the GCC region. The round was led by Flat6Labs, the MENA region's leading seed-stage and early-stage venture capital firm, which accelerated the startup through its Ignite program. The round also included F Capital, a regional growth accelerator and Cosmin Manea, Founding Partner at Instashop.

Founded in Spain in 2022 by IE Business School MBA graduates Wassim Berro and Maurice Karam, Burger Index has quickly established itself as the 'Bloomberg of the F&B sector', providing F&B data analytics

for restaurants, cloud kitchens, food brands and distributors, allowing them to see everything that happens in the market in real time.

Burger Index's key selling point is its ability to help F&B businesses go to market faster, allowing them to spend less time on strategy and more time on execution. By acquiring all the available F&B data in any market, the company minimises the risk of every decision, and provides access to the data at an estimated tenth of the cost of alternatives such as market-research agencies and internal data-insights teams.

"Without data analytics we wouldn't be able to do anything

anymore. It's not a luxury, it's a necessity, you have to have it and if you don't, you're going to fall behind your competition," said Wassim Berro, Founder and CEO of Burger Index. "Our customers already include brands such as McDonald's, Nestle, Reef Technology, Allo Beirut and Majid Al Futtaim. They use Burger Index to answer key questions like where should I open my next location? What shall I price my smash burger? What are the key take outs from my reviews? What salmon poke promotions are active right now? All industries need these kinds of actionable insights in real time."

UNOX'S SPEED-X™ OFFERS 70% EFFICIENCY FOR COMMERCIAL KITCHENS

Sustainably minded Italian oven manufacturer, UNOX has unveiled the stats behind their latest SPEED-X™, the world's first self-washing combi speed oven. The newest launch is designed for commercial kitchens that are looking for a game-changing solution that addresses the need for speed, efficiency, and sustainability. During Q4 2022, the SPEED-X™ was shown to be 70% more efficient than standard commercial ovens.

The SPEED-X™ oven is not only great for the environment but for a brand's bottom line. By reducing cooking time by up to 70%, it increases productivity and reduces energy consumption, leading to lower operating costs and increased profits. The oven is able to reduce the cooking time of a whole chicken to just 7 minutes and a sea bass fillet is fully cooked in just 90 seconds. It is a wise investment for professional chefs, home chefs,

restaurateurs, or caterers looking to meet their sustainability goals and maintain an efficient kitchen. With the SPEED-X™, they can have a pioneering appliance that guarantees quality, speed, and sustainability.

With sustainability and carbon neutrality now at the forefront of global concerns, the SPEED-X™ oven is a standout appliance that offers unrivalled performance while also being environmentally friendly. One of its key features is the self-cleaning program which saves time and reduces the need for manual cleaning. The ROTAR.Klean automatic washing system combines a 1L tank, a water filtration system, and

intelligent sensors to provide up to 2000L of filtered water, as well as intuitive wash cycle suggestions based on the level of cleaning required. The advanced Digital.ID™ user interface makes controlling the technology an effortless task, with a single touch being enough to monitor and control the oven using a simple, modern digital platform.



VITO AG SHOWCASED A NEW FRYING OIL FILTER AT GULFOOD 2023 TRADESHOW

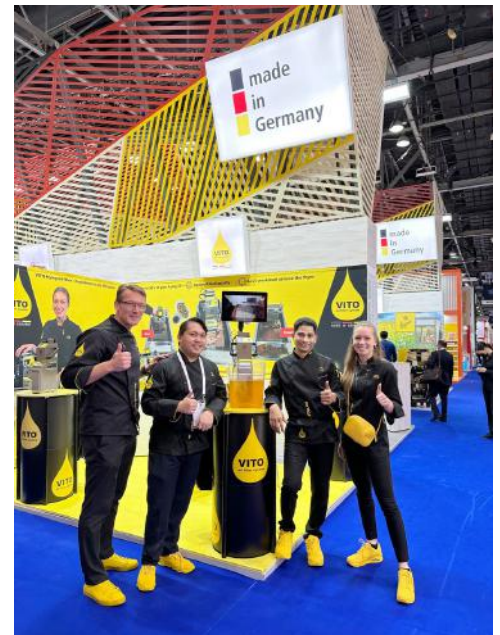
VITO AG from Tuttlingen, Germany, begins the New Year with a product innovation. After having announced the VITO VL frying oil filter in September 2021, which was very well received on the market, the successor model to the VITO 50 was presented in February, 2023. The portable frying oil filters can be put directly into the fryer and they remove all particles from the oil, allowing it to be used much longer. With the automatic pressure filtration of the VM, the device can filter 60 liters of frying oil per minute and removes particles up to 5µ.

Due to that, restaurant and kitchen operators can save up to 50% of their frying oil, they additionally benefit from less cleaning effort and the best quality of their fried food. In addition, the reduced consumption of frying oil

has a positive effect on the environment.

The name VITO VM resulted from the frying oil filter being the medium-sized model of all portable devices. The device comes with a lot of new features. In addition to the redesign, which gives the compact filter a yellow handle, a new control panel and a modified filter lid, the VM is now also much smarter.

One of the most significant innovations is the integrated software VITOconnect, which is also integrated into the VL. With this innovative technology, restaurant operators can now connect their frying oil filter to the local Wi-Fi and lead their kitchens into a new era. After having registered the VITO, the intelligent monitoring begins. Kitchen operators can now have remote access to detailed



information regarding the usage of VITO using their smartphone, tablet or computer - everywhere and anytime. The software allows seamless documentation and, therefore, maximum cost control.

ANUGA 2023 PLACES THE FOCUS ON SUSTAINABLE GROWTH AS ITS KEY THEME

“Sustainable Growth” is the key theme of Anuga 2023. The Anuga community decided this in the scope of a digital communication campaign. As an international trading platform and trendsetter, the leading global trade fair for food and beverages is thus placing one of the central themes of the industry on the agenda. The emphasis lies on different issues, such as for instance how the area of tension between economic growth and sustainability can be conciliated in the food section, which facets sustainable growth offers and which solutions and approaches are globally possible.

By addressing “Sustainable Growth” Anuga is also placing the focus on the commitment and the solutions of the industry with regards to environmental and climate-related aspects. These and other topics are not only covered in the 10 trade shows, they will particularly be discussed in the scope of Anuga’s event and congress programme.

The worldwide food industry is facing major challenges: With a growing population of around 10 billion people by 2050, there is also rising demand for foodstuffs, particularly for protein. At the same time, the threat of

global climate change, water and energy shortages and the loss of biological diversity are putting pressure on the agriculture and food industry. Economic and humanitarian effects, such as disrupted supply chains as a result of the Ukrainian/Russian conflict as well as increasing energy and food costs are aggravating the situation further. The need for product innovations and solutions that will sustainably improve the worldwide food system, is greater than ever.

Anuga will take place from 7 to 11 October 2023, as usual in Cologne, Germany.

MEATLESS KINGDOM WINS ASIA-PACIFIC SCALE IT UP

Start-up company Meatless Kingdom has been chosen as the winner of Asia-Pacific Scale It Up! Innovation Challenge, an innovation challenge with the goal of helping plant-based protein start-ups in Asia accelerate bringing their products to market. The challenge included 30 companies, competing in a six-month long contest, of which Meatless Kingdom emerged as the winner.

To truly become a solution for the growing population and complement conventional proteins, meat and seafood alternatives need to be viable options that are able to meet consumer demand for taste,

texture, nutrition and food transparency. The competition focused on attaining scalability, fostering innovation, and bringing unique value propositions for consumers through authentic tastes and textures. It facilitated the exchange of innovative ideas, in-depth technical expertise, and commercial knowledge, to overcome the challenges that start-ups typically experience in the journey of developing market-ready solutions.

The teams and sponsors worked in tandem over six months to drive and bolster growth in the alternative proteins space. Together, they explored the use of innovative ingredients from micro algae to lupine, in

addition to essential building blocks such as pea protein and specialty starches, to create alternative protein products like plant-based tuna alternatives. Throughout, the goal was to improve the overall eating experience and optimize the manufacturing process to scale production. Meatless Kingdom was selected as the winner with their plant-based bak kwa (barbecued meat), an Asian inspired plant-based protein that offers an affordable and attractive sensorial experience, while Eighth Day Foods was selected as the first runner up for their innovative product, a plant protein derived from lupine that offers a clean taste profile.

QNET'S HOMEPURE VIVA DELIVERS THE PUREST DRINKING WATER DIRECTLY TO HOUSEHOLDS

QNET, an e-commerce based direct selling company, has unveiled its latest innovation in the HomePure range – the HomePure Viva. This state-of-the-art water ioniser and filter

is set to redefine how people access healthy drinking water in the comfort of their homes. In celebration of its 25th anniversary, QNET has taken a significant stride forward by introducing

this revolutionary product to its diverse portfolio of high-quality products.

Featuring cutting-edge technology developed by world-class researchers, the HomePure Viva is the most advanced water ionising system on the market. It

provides precise, pH-balanced water without chemical booster agents or complicated user manuals. With just the touch of a button, users can enjoy a refreshing glass of water packed with essential nutrients and bursting with flavour.

“We are thrilled to introduce the HomePure Viva to our customers and bring the world’s healthiest water straight to their homes,” said Mr. Hussam Eldin Elmilliegi, QNET’s Deputy Regional General Manager for the Middle East and North Africa. “Our aim is to create a product that is not only easy to use but also delivers a safe and consistent supply of water that can boost the immune system and increase energy levels.”



THAIFEX-ANUGA ASIA 2023: AN EXTRAORDINARY TRADE SHOW WITH DAZZLING FOOD AND BEVERAGE

Thailand...preparing to host THAIFEX-ANUGA ASIA 2023, Asia's leading food and beverage trade show, coming back with full scale and bigger space organized by the Department of International Trade Promotion, Ministry of Commerce, the Thai Chamber of Commerce, and Koelnmesse, Germany. THAIFEX-ANUGA ASIA 2023 is an annual platform for food industry professionals such as retail stores, supermarkets, department stores, hotels and restaurants to explore exceptional products and innovations on the exhibition area of more than 130,000 sq.m.

THAIFEX-ANUGA ASIA 2023 is Asia's largest and most comprehensive food and beverage trade show with 11 trade shows under one roof including Coffee & Tea, Drinks,



Fine Food, Food Service, Food Technology, Frozen Food, Fruits & Vegetables, Meat, Rice, Seafood, Sweet & Confectionery with over 2,700 exhibitors from more than 40 countries.

THAIFEX-ANUGA ASIA 2023 also opens up a "more" experience with exhibitions,

seminars and special activities such as organic food, halal food and future food & Innovation taste that enable you to expand your ideas for business and achieve even greater success.

THAIFEX-ANUGA ASIA 2023 will be open for trade days during 23-27 May, 2023.

GHASSAN ABOUD GROUP AND HALAL QUALITY CONTROL GROUP JOIN FORCES TO ACCELERATE HALAL ECONOMY GROWTH IN THE UAE AND BEYOND

UAE-headquartered international conglomerate Ghassan Aboud Group and Halal Quality Control (HQC) Group have announced the introduction of Halal certification solutions for UAE companies producing and exporting Halal goods at the world's largest annual global food and beverage sourcing event, Gulfood.

The joint venture will provide accreditation and business solutions that maintain high standards and regulations in line with international halal requirements to facilitate the

growth of the Halal economy in the UAE and boost trade to the whole region through an online application process on its dedicated online platform.

With the Halal economy estimated to be worth \$3.2 trillion by 2024 – according to the second edition of the Halal Guidebook released last year – the UAE has established itself as a key player in producing and exporting goods and products across a number of industries as demand surges.

Commenting on the occasion, Ghassan Aboud,

Founder and Chairman of Ghassan Aboud Group, said: "The partnership between the Group and HQC, which has been established within the Dubai Multi Commodities Centre (DMCC) ecosystem is a significant milestone in our efforts to contribute to the UAE's position as a leader in the Halal industry. The joint venture has been set up to assist its customers on their journey to becoming Halal-certified and will help realise new avenues for trading through halal certifications and training."



The next edition of TUTTOFOOD, Italy's most international Food & Beverage exhibition, will be held at fieramilano exhibition centre in Milano-Rho from 8th to 11th May 2023.

2000 exhibitors will meet professional visitors from a great variety of nations worldwide, including top representatives from the most relevant international large-scale retailers and the trendiest deli chains.

More than ever, this year TUTTOFOOD will be the no-

TUTTOFOOD RETURNS IN MAY 2023 AT FIERA MILANO, ITALY

miss event in Milan, the capital of Italian lifestyle and one of the world's gourmet capitals, for all media representatives from all over the world interested in the Food & beverage themes.

With just few weeks to go before the ribbon-cutting ceremony, the TUTTOGROCERY, TUTTOSEAFOOD and TUTTOFROZEN sectors already count the participation of all the big names in the industry. Top player and strong international presence also in the TUTTOMEAT, TUTTODAIRY and TUTTOSWEET sectors.

The confirmation of TUTTOFOOD role as international hub and point of reference for the sector does not come only from the numbers - to

date there are more than 1200 exhibitors - but also from the rich calendar of events dedicated to the most current topics of large-scale distribution. Among the most relevant themes, the relationship between companies and retailers, the increasingly central role of sustainability and innovation as well as the reaction of companies in the sector to new trends, market needs and current critical issues.

TUTTOFOOD thus represents a unique opportunity to further enhance your knowledge of the Food & Beverage industry and provide you with trends and contents to write about its most cutting-edge aspects.





GLOBAL HOSPITALITY PROVIDERS HEAD TO DUBAI AS REGIONAL INDUSTRY PLANS MULTI-BILLION INVESTMENTS

Major worldwide players will gather in Dubai this May (23-25 May) at The Hotel Show – the undisputed flagship for, and gateway to, the Middle East’s multi-billion-dollar hospitality industry – as the Middle East plans new developments to meet accelerated tourism ambitions.

Running at Dubai World Trade Centre, the Hotel Show comes against a regional upsurge of hospitality investment driven largely by the UAE and Saudi Arabia.

“Saudi Arabia alone needs to accommodate the 100 million tourists it hopes to attract by 2030 with a hotel pipeline valued at US\$110 billion while the UAE hospitality market is expected to expand by 25% over the same period adding a further 48,000

rooms to its room stock. This offers unprecedented opportunity for developers, equipment and product suppliers, designers and operators,” said Elaine O’Connell, Vice President of Design and Hospitality at dmg events, show organiser.

The event will also dig deep into the regional hotel prospects through probing conferences, seminars and features which will help industry professionals unearth the opportunity sweet spots.

Upwards of 13,000 industry-related professionals from investors and owners, F&B specialists, procurement decision-makers, designers and specifiers are expected to attend the show. Meanwhile, show attendance is expected to benefit from its co-location with the Leisure Show, the

one-stop exhibition for the Middle East’s dynamic fitness, spa, and gym sectors, which brings owners and operators together with equipment distributors and suppliers. The show has areas dedicated to sport & fitness, wellness & spa, and recreation & adventure.

Also co-located alongside The Hotel Show Dubai and The Leisure Show will be HITEC Dubai, the world’s largest hospitality technology event, INDEX interior design show and Workspace – the premier event for workplace technologies, with over 28,000 visitors expected to attend all co-located shows.

For more information, visit www.thehotelshow.com





THE BIGGEST EDITION OF GULFOOD COMES TO A RECORD- BREAKING CLOSE!

Food and beverage producers from across the GCC have praised Gulfood 2023, capitalizing on the opportunities at the 28th edition of the world's largest annual F&B sourcing event which ran at Dubai World Trade Centre (DWTC) from 20-24 February 2023.

The biggest edition in Gulfood's history brought together with 5,223 leading food and beverage companies, showcasing 100,000 new products from 125 countries and 134,460 visitors from 195 countries. Filled with countless networking opportunities to develop new business relationships and strengthen existing ones, this year's show offered a bigger platform to make new partnerships, deals, collaborations, signings and announcements.

Gulfood 2023's record scale was due in part to the introduction of Gulfood Plus, a brand-new bespoke hall, where first-time exhibitors could showcase product innovations across 10,000 m² of added floorspace.

Over the past 28 years, Gulfood has cultivated the credibility, loyalty, recognition,

and support of the global food and beverage sector, through an unwavering commitment to delivering real global business outcomes and valuable trade deals for participants. This edition welcomed a global lineup of returning and new exhibitors, all of whom have placed their trust in the Gulfood brand and successfully reaped



the commercial rewards that it continues to deliver.

Leading global brands exhibited include: Unilever, GMG, Americana, Agthia, Fonterra, McCain, Monin, USAPEEC, Hunter Foods, ASMAK, Minerva Foods, U.S. Dairy Export Council, Frinsa Group, Emirates Snacks Foods and Al Rabie to name a few; as well as

newcomers including Brazilian food processing company: BRF Global and Agricultural, and Processed Food Products Export Development Authority (APEDA).

Gulfood has established a position as the world's largest annual food & beverages trade show. The show is professionally managed and hosted by the Dubai World Trade Centre

(DWTC). DWTC brings more than 40 years' experience delivering world-class events in the Middle East and provides local, regional, and international exhibitors with unmatched expertise and in-depth market knowledge. The next edition of Gulfood will take place from 19-23 February 2024 at the Dubai World Trade Centre.





IMPROVE DAIRY PRODUCTIVITY WITHOUT COMPROMISING ON PRODUCT QUALITY

Great taste is a key contributor to brand loyalty. This underscores the importance of keeping dairy products delicious - also when making recipe changes and cost optimizations.

The world has changed dramatically over the past years due to the macro-economic situation. Disrupted supply chains, inflation pressure and rising costs have challenged producers across industries to get the most out of the raw materials available.

Optimizing productivity need not affect the quality of the consumer

experience or compromise on your brand's commitment to excellence and sustainability. Producers will come a long way by selecting the best cultures and enzymes for their recipe and combining them with the ideal technologies and processes to save on costs and maintain the great quality of final products that their customers expect.

When productivity and sustainability go hand in hand

At Chr. Hansen, we have 149 years of experience working with nature's own resources as a powerful tool for dairy producers to optimize processes for enhanced efficiency and sustainability. We work together with our customers to improve yield, reduce waste, decrease production time and

much more.

The following are concrete examples of how producers of both yogurt and cheese have partnered with Chr. Hansen to maximize productivity, cut costs and get the most out of their milk:

 **Reducing protein levels in yogurt**, combined with the newest culture innovations, can help producers to cut costs. Chr. Hansen's YoFlex® Premium range consists of high texturing cultures compensating for the loss of texture due to the lower solids. With these unique cultures, it is possible to reduce protein by 0.2% – and in some cases even more.



With the right ingredients

and production process, producers can **reduce the ratio of solids in their cheese**, which can cut costs without compromising on taste and texture. Chr. Hansen's market-leading low-proteolytic coagulants, such as CHY-MAX®, can improve solids recovery and moisture retention leading to yield increase in cheese, while maintaining the same superior quality.

 **Reducing maturation time** is another lever for improving efficiency. Producers have been able to incorporate ripening cultures, to speed up maturation of cheese, releasing it to the market earlier than scheduled. While natural maturation plays an important role in the development

of intense flavor, Chr. Hansen's ripening solutions are boosting desirable flavor notes naturally, just faster.

Small productivity improvements can have a big impact

Interested in learning more? Our team of technical account managers have the experience and expertise to collaborate with dairy producers all over the world to identify the best culture and enzyme solutions and applying optimal process parameters for existing and new recipe formulations.

Partner with us and experience the difference improved productivity can make. Together we can grow a better world. Naturally.



Cut costs, reduce waste and get more out of milk

in dairy production without compromising on taste, texture and quality your consumers love

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Improving food & health

SALAD SEASON IS HERE: CHEESE AS AN INGREDIENT TO ENRICH THE FLAVOUR OF YOUR LUNCH BREAK

“Mixed salads” are a real must-have for consumers, both in retail versions and in commercial catering offers. Whether they are simple or gourmet, they are often enriched by adding cheese. DalterFood Group, thanks to its wide variety of cheeses and cuts and its consultancy service, can meet the different needs of every client, supporting the food industry and food service sector in choosing the best ingredient to add flavour to a wide range of salads.

Made with vegetables, rice, pasta, chicken or fish: salads come in many different versions, both on restaurant menus and in supermarkets. Cheese is one of the distinctive ingredients, which

helps turn a normal salad into a complete, delicious dish, while also enhancing its texture and flavour.

As one of the biggest players in the national and international dairy sector, DalterFood Group offers its clients a wide assortment of cheeses, both aged PDO ones and not, being able to offer a solution for every request. The jewel in the company's crown is Parmigiano Reggiano, produced from an integrated, controlled and animal welfare-certified supply chain and offered in different ages and versions: conventional, Mountain Product, “solo di Pezzata Rossa Italiana” (only from Italian Pezzata Rossa cows) and

Organic.

There are many other cheeses in the catalogue, starting with mozzarella pearls, both from Cows and Buffaloes: produced by select partners and packaged in practical industrial packs, they stand out with their fresh, delicate taste and can enhance the flavour of a wide range of salads.

Thanks to its extensive range, DalterFood Group can provide products that are also suitable for vegetarians or flexitarians, such as Spinoro, a hard cheese with an enveloping aroma made with microbial rennet, and therefore not from animals, as well as Pastamore.

Its assortment of cuts and packs is just as wide: flakes, ribbons, cubes, shavings and strings offered in industrial packs or in practical single-serving sachets to be included directly in meal kits. This last type of packaging, made from 100% recyclable plastic, meets the need for food safety and offers a high level of service as it can be handled by the consumer on their own.

Every client can therefore find not just the perfect cheese, but also the ideal format and pack for any salad, being able to characterise and expand their offer for the general public.

A flexible structure, ongoing research and innovation as well as carefully and meticulously listening to the client also help create tailor-made solutions.

For more information, visit www.dalterfoods.com





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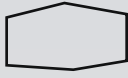
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SUGAR AND FAT REDUCTION IN DAIRY AND DELI FOODS

The reduction of sugar and fat in foods is a subject of intense discussion around the world. The main driver for this remains the ominous increase in obesity on all five continents, which is being linked to higher sugar and fat consumption in particular. This is especially the case for children and young people. Many countries have already implemented streetlight systems like Nutriscore, or restrictive measures like the sugar tax. In addition to sound education and changes in eating habits, sugar- and fat-reduced

products are a good way to come to grips with the problem. But sugar and fat are important flavour and texture components. If foods, especially convenience foods, are to taste good, new solutions are needed. Hydrosol has developed stabilising and texturing systems specifically for dairy products and deli foods. These include concepts for designing sugar- and fat-reduced dairy and deli products around the needs of children.

“We use carefully selected hydrocolloids and vegetable fibre to substitute for the beneficial technological properties of sugar and fat.

They give the various final products a pleasant texture and familiar

mouthfeel,” explains Katharina Schäfer, Team Lead Product Management Hydrosol. “In application testing we determine the ideal interplay of all the components, in order to get the desired characteristics in the final product. We use the same equipment as is commonly found in the dairy and deli foods industries. This lets us combine easy production with ideal product characteristics and nutritionally optimum formulations.”

To get the right sweetness, Hydrosol uses conventional sweeteners or products like stevia which have a positive image with consumers. Natural flavourings round out the flavour profile. Hydrosol works closely with sister company OlbrichtArom, which has developed a “sugar booster” especially for reduced-sugar products. This natural flavouring amplifies the delicate sweetness in final products without negatively influencing their characteristic flavour.

From yogurt to ketchup

With these functional systems, dairies can make products like milk mixed beverages or milk-juice drinks. Fermented milk





products like yogurt, drinking yogurt and quark desserts can likewise be readily reformulated to reduce the sugar and fat. A stabilising system makes it easy to produce puddings that are sugar-reduced, low-fat and fibre-enriched, as well as lactose-free and micronutrient-fortified. A clean label system for ice cream forms the basis for a reformulated product with 30 percent less sugar. Although the system contains no conventional emulsifiers, it still gives a final product with an especially creamy mouthfeel.

In the cheese category, Hydrosol has developed a stabilising system for “squeezable” processed cheese preparations in tubes, pouches and similar soft packaging. The declaration-friendly final product needs no melting salts or table salt. 50

percent cheese goes into the premium formulation. In the deli category the clean-label system for sugar-reduced ketchup lets manufacturers use other vegetables in addition to tomatoes. This way, vegetables can be offered in “hidden” form. A clean label system for french fry sauce likewise features nutritional benefits. For example, it can be used for formulations with high fibre content.

Less fat, delicious flavour

The targeted combination of individual building blocks like vegetable fibre, hydrocolloids, starch and emulsifiers is the recipe for success with authentic flavour and pleasing mouthfeel in products with reduced fat content. This

applies to yogurt and pudding as well as cream cheese, bread spreads or vegetable fat creams, and naturally mayonnaise as well. As Katharina Schäfer says, “With the combination of different ingredient groups, like hydrocolloids, proteins and plant-based fibre, we make targeted use of the interactions between these and other substances. From our long applications experience, we know that the synergistic effects of these complexes give much better results than single ingredients. This applies to sugar and fat-reduced foods as well as other trend products, from the entry price range to premium quality.”

For more information, visit www.hydrosol.de





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IFF LAUNCHES CREMODAN® GREENPRO 101 TO DRIVE AFFORDABILITY AND SUSTAINABILITY IN ICE CREAMS

IFF (NYSE: IFF) announced the Europe, Middle East, Africa, Turkey and India launch of its new CREMODAN® GREENPRO 101 Modulator Enhanced System, an innovation designed for ice cream manufacturers who seek to maintain the indulgent quality of their products in a cost-effective manner. The new CREMODAN® GREENPRO 101 offers a chance to cut recipe costs by up to 25 percent and reduces the carbon footprint of ingredients used in ice cream by up to 30 percent.

Despite the favorable forecast for the global ice cream market—Euromonitor predicts 2 percent year-on-year growth up to 2026—inflationary pressures remain a challenge. Particularly, high-quality brands have seen a drop in sales volumes over the past year, driven by increased production costs and price-sensitive consumers, who have switched to low-cost alternatives.

Rising milk prices are the crux of

the challenge. According to Teagasc in 2022, the average price of raw milk rose 44 percent in the EU alone. Prices are expected to remain relatively high through 2023.

“Milk and fat are key to the indulgent taste and texture that drive ice cream sales,” said Stephane Dessart, global product marketing leader, IFF. “Our modulator-enhanced system is a direct response to manufacturers who want to continue making high-quality products at a more affordable price.”

This new system is the first innovation from IFF to combine an ice cream stabilizer system for optimum creaminess, mouthfeel and melting properties with an innovative flavor-modulating technology in one synergistic blend. Designed for swift recipe reformulation and ease of use, the new system allows manufacturers to reduce the milk solids and fat content of ice cream without impacting its perceived indulgent quality. Trials show that with CREMODAN®

GREENPRO 101, consumers cannot taste or feel any difference between a standard ice cream and a milk-reduced recipe with the new system.

A cradle to gate Life Cycle Analysis (LCA) show an up to 30 percent reduction in the carbon footprint of raw material ingredients used in manufacturing ice creams. As part of IFF’s Do More Good plan, IFF applies LCA to identify, document and further improve sustainable solutions that can help customers and partners achieve their Environment, Social and Governance (ESG) objectives such as reductions of GHG emissions and other environmental impacts.

“This is the core of the value proposition to manufacturers: that they can produce their products at a lower price, with reduced carbon footprint and still give consumers the same experience,” said Dessart.

For more information, visit www.iff.com

ARLA FOODS INGREDIENTS HIGHLIGHTS GROWING CONSUMER FOCUS ON PROTEIN QUALITY

INGREDIENTS



Arla Foods Ingredients is highlighting growing consumer focus on nutrient quality as it launches a new brand for its line of microparticulated whey proteins.

Recent research shows that almost 70% of consumers are focused on the sources of protein in food and beverages, with naturality and nutritional value major motivations. Furthermore, 36% of those with an interest in protein say a complete protein source is the most important factor when choosing between products.

To help meet this increasing need, Arla Foods Ingredients offers a line of whey

proteins based on patented microparticulation technology. Bearing the new name of Nutrilac® ProteinBoost, it offers a range of benefits that meet the needs of manufacturers as well as health-conscious consumers.

Rich in all nine essential amino acids, the ingredients in the range represent a complete protein source. Additionally, they are easy to add to food and beverage products, and provide indulgent texture and mild dairy taste.

Katrine Helene Fruergaard Holm, Global Industry Marketing Manager at Arla Foods Ingredients, said: "Protein is the go-to nutrient for many health-

focused consumers and for years manufacturers responded by packing in as much of it as possible. However, consumers are increasingly focused not just on getting more protein, but also on getting the right protein. They want complete proteins that deliver all the essential amino acids needed for well balanced nutrition, and of course they want them in products with great taste and texture. Offering both practical benefits and high nutritional quality, Nutrilac® ProteinBoost is the ultimate complete protein source."

For more information, visit www.arlafoodingredients.com



VEGAN PROTEIN YEASTIN® SHOWS EXCELLENT SUSTAINABILITY IN LIFE CYCLE ASSESSMENT

A study at the University of Applied Sciences Northwestern Switzerland (FHNW) recently aimed to evaluate the environmental impact of burger patty production. A patty made with proteins sourced from brewer's spent yeast (BSY) was compared with conventional beef and a vegan one as benchmarks. The ISO 14040 ff Life Cycle Assessment (LCA) showed that Yeastin® can reduce the environmental footprint of a 113g burger patty by 74–81% depending on the indicator examined.

The research results of the Institute for Ecopreneurship at the FHNW are impressive: a vegan burger patty made from Yeastin® protein by Yeastup has an even smaller ecological footprint than one made from pea protein. The production of pea protein had the greatest environmental impact on the conventional vegan patty (19–45%), with the meat in the beef patty producing a figure of 84–98%. Compared with the

beef patty, the environmental ramifications of the Yeastup alternative were significantly lower across all impact assessment methods — possibly because of the elevated global warming potential (GWP) of beef production.

However, Daniel Gnos, founder of Yeastup AG, sees another huge advantage: “Thanks to the use of an industrial by-product, Yeastin® requires no arable land, no cultivation, no irrigation and no pesticides. This is a clear ecological benefit over animal and plant sources.”

Ecologically and nutritionally valuable alternative

Of the environmental footprint of Yeastin®, 56% was attributable to the animal feed substitution that replaces the brewer's spent yeast in its previous use, which must be taken into account in accordance with the requirements of the general guidelines for the preparation of an ecological footprint (PEF).

Compared with the benchmark pea protein, Yeastup protein has an approximately 81% lower environmental impact, 74% fewer greenhouse gas emissions and an 80% lower cumulative energy demand. Yeastin® has the potential to become a promising alternative to animal and vegetable proteins due to its significantly lower environmental footprint and excellent nutritional properties.

It is a high-quality protein powder that convinces in terms of purity and quality and, importantly, has a neutral taste. Furthermore, its excellent nutritional profile matches that of animal proteins. Protein formulations containing Yeastin® also showed promising functional properties in initial laboratory scale trials. There are numerous application possibilities, too, from meat substitutes and cheese alternatives to sports nutrition products.

For more information, visit www.yeastup.com



MUSH FOODS UPCYCLES FOOD WASTE TO GROW HIGHLY NUTRITIOUS MYCELIUM PROTEIN

FoodTech start-up Mush Foods, Ltd. is propelling the “meat-plus” movement to the mainstream of foodservice and food retail. A portfolio company of the Strauss Group Kitchen FoodTech Hub, Mush Foods developed its 50CUT mycelium protein ingredient solution to slash the animal protein content in meat products by 50%. Mushroom-derived 50CUT delivers a beefy bite of nutrient-dense protein to meat hybrid formulations that appeal to even the most devoted meat lovers.

“Our mushroom-derived products address the reality that there is a sizeable population of carnivores who are simply not willing to compromise on beef’s rich taste, nutritional boost, and textural experience,” explains Shalom Daniel, co-founder and CEO of Mush Foods. “50CUT is tailored specifically for hybrid meat products to satisfy flexitarians and carnivores with the unique sensation they crave, while easing the impact of global meat consumption.”

The Perfect Blend

Mush Foods’ 50CUT product tailored specifically for blending with beef is composed of three edible Mushroom mycelium species. “By combining different types of mycelium we can create a unique ingredient which perfectly pairs with the particular taste, formability,

texture, aroma, and even color of beef,” notes Dan Levanon, PhD, co-founder and Chief Scientific Officer of Mush Foods. “Once you add 50CUT to ground beef, it acts like a sponge and absorbs all the water, juiciness, fat, aromatic compounds, and assumes the visual appearance of the beef. From the full organoleptic and nutritional perspectives, 50CUT functions as the perfect complement to beef, enhancing its taste.”

The Technology Behind 50CUT

The mycelium network is a thread-like, root-like underground system of fungi. It breaks down forest plant matter and nourishes the mushrooms growing above ground as well as the surrounding ecosystem. Mush Foods’ pioneering proprietary technology for

upcycling food side streams from local manufacturers was initially developed at the MIGAL Galilee Research Institute, Israel.

“We grow the mycelium above the ground in indoor farms using a highly efficient method,” explains Idan Pereman, PhD, co-founder and Mycology Director for Mush Foods. “Our fermentation platform recreates the underground growth conditions, without light and uses minimal land, energy, and water. After harvesting, we produce the mycelium in a 100% natural process, with gentle preparing and shaping, reducing liquid to create a final product which contains no additional ingredients, binders, additives or flavorings.”

For more information, visit www.mush-foods.com



The landmark EAT-Lancet report, published in 2019, laid out how to nourish people and save the planet through a “planetary health diet”, consisting mostly of whole plant-based foods. But new research, published recently in The Lancet Planetary Health, suggests the planetary health diet does not provide enough essential vitamins and minerals to nourish the global population. This is even more evident when looking at women of reproductive age (15–49 years) who have increased iron requirements due to menstruation. The planetary health diet provides just 55% of recommended iron intakes for this population.

The research, “Estimated micronutrient shortfalls of the EAT–Lancet planetary health diet,” reveals important dietary shortfalls in iron, zinc, calcium, and vitamin B12. The researchers used new globally representative food composition data and recommendations on harmonised nutrient intakes, both of which were published after the original EAT-Lancet publication. They also adjusted for how nutrients like iron and zinc are absorbed by the body on different types of diets.

Dr Ty Beal, Research Advisor at the Global Alliance for Improved Nutrition (GAIN) and lead author on this publication said, “The planetary health diet is likely to help protect against noncommunicable diseases, which are the leading causes of death and disease worldwide, and to do so sustainably. But these new findings on shortfalls in essential vitamins and minerals are concerning because deficiencies in these ‘micronutrients’ can lead to severe and lasting effects, including compromised immune systems and increased risk for infections; hindered child



HOW TO EAT TO NOURISH PEOPLE WHILE PROTECTING THE PLANET

growth, development, and school performance; and decreased work productivity; all of which ultimately limit human potential.”

The micronutrient shortfalls of the planetary health diet are due to the low amount of animal source foods, which make up just 14% of total calories. To make the planetary health diet adequate in micronutrients would require increasing nutrient-dense animal source foods. In addition, it would require reductions in a compound called phytate, which inhibits absorption of iron, zinc, and calcium. This could be done by reducing the proportion of whole grains, legumes, and nuts—from the baseline planetary health diet, not from current consumption—or, preferably, by reducing the phytate in these foods through crop breeding and processing, including soaking, fermenting, and sprouting.

According to Dr Jessica Fanzo, Bloomberg Distinguished Professor of Food Policy at Johns Hopkins University and co-author, “The challenge in providing enough micronutrients is doing so sustainably. It is not clear exactly how much animal source food, and which types, could be sustainably produced worldwide: experts have different perspectives. But there is a limit. And there will inevitably be trade-offs to grapple with, between

human health and environmental sustainability. It is important to use all available approaches to improve diets, including improving diet quality through nutrient-dense foods of both plant and animal origin, and food fortification and supplementation, which have limitations but can help fill micronutrient gaps sustainably and affordably.”

What is clear is that a combination of actions is needed to increase access to diverse nutrient-dense and healthy foods and supplements. This includes increasing their availability, desirability, convenience, safety and affordability through incentives and subsidies, improving fortification policies and implementation; and improving access to healthcare and supplements.

Dr Mduduzi Mbuya, Director of Knowledge Leadership at GAIN concluded, “Future efforts to propose healthy and sustainable diets must ensure micronutrient adequacy, tailor recommendations according to the local context, equitably involve local stakeholders impacted by any changes, and be transparent about trade-offs. Preserving human health and protecting our planet are more important now than ever. All of society must rise to the challenge, now, to address these integrally linked and equally important challenges.”



CONFIXX® INSPIRES BREAKTHROUGHS IN FORTIFIED GUMMY PRODUCTION

GELITA, the leading manufacturer of collagen peptides and tailored gelatins, has launched a fast-setting gelatin that enables a breakthrough in fortified gummy production. Branded CONFIXX®, the new gelatin allows for the starch-free production of gummies with a sensorial profile that has previously only been attainable with a starch-based manufacturing process. This opens up opportunities for manufacturers of these on-trend supplements to work with different active ingredients, simplify the production process and make considerable cost savings – all the while confident in the knowledge that there will be no compromise on all-important texture.

By moving away from starch-based towards starchless manufacturing with CONFIXX®, manufacturers can make considerable efficiency gains in the field of fortified gummies – both in terms of cost and active ingredients. Eliminating the starch preparation and gummy drying steps reduces production time from two days to just a few hours and

reduces the overall footprint of the process; Less space is needed and the quicker, more streamlined process is far less energy intensive. CONFIXX® also enables GMP-compliant production of functional and fortified gummies and rules out the risk of cross-contamination through full separation of batches with different active ingredients.

With CONFIXX®, manufacturers have greater freedom to innovate too. The simplified process lends itself to production of small batches, with greater flexibility in terms of product changes and tighter control over ingredient dosing. This, coupled with the high tolerance of gelatin to formulation changes and the more gentle treatment of ingredients, makes it easy to accommodate a broader range of active ingredients – including difficult to work with and heat-sensitive ingredients. And all this while delivering the chewy, jelly texture that consumers have come to expect from their gummies.

Dr. Johanna Schmidgall, Global Head of Application Development at GELITA,

comments: “The market for functional and fortified fruit gummies offers exciting growth prospects. Until now, product developers in this space have had their creativity curbed by practical manufacturing limitations. With the introduction of CONFIXX® it is possible to produce gelatin-based gummies with virtually any active ingredient – from collagen peptides to melatonin, vitamins and minerals. We can’t wait to see what new innovations this development will inspire.”

The popularity of fortified gummies has exploded in recent years as consumers eschew conventional pill and capsule-based supplement formats in favour of soft and chewy ‘candyceuticals’. According to data from Innova Market Insights, gummy supplements accounted for 9.4% of global supplement launches in 2021 – an increase of 70% since 2017, and between 2020 to 2021 alone, the number of gummy supplement launches globally rocketed by 81%.

For more information, visit www.gelita.com



ADDING JUST A SMALL HANDFUL OF WALNUTS CAN HAVE DIETARY BENEFITS FOR THE WHOLE FAMILY

New modeling research suggests adding just one ounce of walnuts to the typical American diet is a simple change that brings many nutritional benefits for all life stages

A new study¹ from researchers at Indiana University School of Public Health-Bloomington have found that adding one ounce of walnuts (or one handful) to the diet of children and adults who do not normally eat nuts improves diet quality and intake of some under-consumed nutrients of public health importance.

Consistent evidence shows that walnuts as a snack or within a meal can provide good nutrition and be part of a healthy diet for life.^{1,2}

“While nut consumption is already promoted in the Dietary Guidelines for Americans as part of a healthy dietary pattern, consumers are often not eating enough alongside whole grains, fruit and vegetables,” says Dr. Thiagarajah, lead researcher on the study and Senior Lecturer of Nutrition at Indiana University School of Public Health-Bloomington.

“Underconsumption of nutritious

foods like walnuts as part of a balanced diet can result in nutrient inadequacies. When added in the diet, walnuts lead to small nutrition wins for the whole family,” she adds.

For parents and guardians, ensuring children and adolescents are getting all the nutrients they need can be challenging.³ This is one of the few studies looking at the typical diet of both children and adults and simulating how the simple addition of walnuts to the diet could help achieve better nutritional status. Incorporating walnuts into snacks and meals may be an easy option for adults and children to consider as part of their diet.

Study Overview

Advanced statistical modeling techniques were used to see what would happen when one ounce of walnuts was added to the typical daily diet of nearly 8,000 Americans who do not currently eat nuts.

Participant health and dietary

information were obtained from The National Health and Nutrition Examination Survey (NHANES), which is a nationally representative, cross-sectional survey of people living in the United States. Information was analyzed by age group (4–8 years, 9–13 years, 14–18 years, 19–50 years, 51–70 years, 71 years and older) and gender.

“We primarily wanted to see how adding a handful of walnuts to the typical U.S. diet could change intakes in nutrients of public health concern identified by the 2020–2025 U.S. Dietary Guidelines for Americans, including potassium, dietary fiber, and magnesium,” explains Dr. Thiagarajah.

Researchers then evaluated diet quality with and without the added one ounce of walnuts using the 2015 Healthy Eating Index (HEI-2015).

Results at a glance

Adding one ounce of walnuts to the typical diets of Americans

Outcome	Result
Healthy Eating Index (e.g., Diet Quality)	- Significantly improved the diet quality for all ages and genders. - Improvements were seen for the seafood and plant protein category (e.g., more seafood and plant protein), as well as the ratio of unsaturated to saturated fats (e.g., less saturated fat).
Nutrients of Public Health Importance from the 2020 Dietary Guidelines for Americans	- Significantly improved fiber intake across all age and gender categories. - Increased the percentage of adults above the recommended daily intake for potassium. A similar trend was observed among children and adolescents (4–18 years). - Reduced the percentage of adults, children, and adolescents with intakes below the daily needs for magnesium and folate.
Other Nutrients	Reductions in copper and zinc inadequacy for most age and gender groups.

Table 1. Summary of the nutrient impact of adding one ounce of walnuts to typical American diet

resulted in the following outcomes listed in Table 1.

“This was not an intervention or feeding study, but the modeling done as part of this research is highly important as it allows us to evaluate broad dietary implications for the general public which could have meaningful impacts to overall health,” notes Dr. Thiagarajah.

Limitations of this study include the fact that self-reported 24-hour dietary recall data were used to conduct the modeling in this study and are subject to measurement error due to large day-to-day variations in food intake.

Additionally, this study can only

be used to explain how adding walnuts to the diet of no-nut consumers may be impacted (n=7,757). No nut consumers tended to be younger, Hispanic or black, have an annual household income of less than \$20,000.

While this modeling study demonstrates potential positive nutritional impact with walnut consumption, further observational studies or well-designed randomized clinical trials are needed to confirm these results.

A simple strategy such as adding one ounce of walnuts to a daily eating pattern can be a potential solution to improve diet quality for people of all ages. This modeling study clearly demonstrates that small

dietary changes with nutrient-dense foods like walnuts may have significant benefits on nutrient intake and diet quality.

For more information, visit www.californiawalnuts.ae

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*Supportive but not conclusive research shows that eating 1.5 ounces of walnuts per day, as part of a low saturated fat and low cholesterol diet and not resulting in increased caloric intake, may reduce the risk of coronary heart disease. (FDA) One ounce of walnuts offers 18 grams of total fat, 2.5 grams of monounsaturated fat, 13 grams of polyunsaturated fat including 2.5 grams of alpha-linolenic acid – the plant-based omega-3.





FIBER ORIENTATION: HOW CAN IT HELP YOU MAKE BETTER BURGERS?

Controlling fiber orientation is key to creating texture, bite and juiciness in a burger.

What makes a good burger? The criteria for many are taste, texture and appearance. Fiber orientation significantly affects each of these things. But what exactly is fiber orientation? How can you control it? And how will it help you make better burgers?

What is fiber orientation?

Fiber orientation in burger processing refers to the direction of the individual columns of protein fibers or the grain of the ground meat. Various burger types are easily identifiable

based on how the fibers are oriented. Each one delivering a specific eating experience and taste. The standard burger is typically pressed with random fiber orientation. There are the homestyle and tender-fresh burgers, where the fibers are oriented vertically. And then you have the butcher burger where fibers are interlaced.

Why is fiber orientation important?

Michelin Three-Star chef Heston Blumenthal of MasterChef fame, spent six months using science

Butcher burger
Interlaced fiber

Homestyle burger
Fine vertical fiber

Tender-fresh burger
Vertical fiber

Standard burger
No fiber orientation

to create the 'perfect hamburger'. His biggest revelation was that in order to achieve an open, tender and juicy texture, the grains of ground meat should all fall in the same direction.

One of the current trends in the burger market is the growing number of consumers seeking variations on the humble burger patty. They want new eating experiences and look for burgers with variations in texture and a distinctive bite. Therefore, it is becoming increasingly important that processors can create premium burgers that give an optimal eating experience. Controlling fiber orientation during processing is key to controlling the characteristics of a burger and gaining the following benefits.

Create different patty textures

The orientation of the meat proteins determines burger

texture. By controlling the direction of the fibers, it is possible to obtain very distinct textures and create different types of burgers. For example, when a loose bite is desired, a fiber orientation perpendicular to the plane of the burger is best. Alternatively, interlacing the fibers will give a more open structure that is juicier and requires shorter cooking time.

Get a better bite

Burger texture is not only influenced by the direction of the fibers but also by the size of the individual columns of meat fibers. Increasing the size of the columns gives more bite, improving the feeling in the mouth and giving a more beefy texture.

Create different levels of juiciness

Combining different sizes and orientations of meat fibers makes

it possible to control the spacing of fibers with air inside the burger, which influences the bite and cooking time.

Improve final appearance

Cooking a burger will cause meat fibers to contract, and, after cooking, it should remain a similar size and still look appealing. It is possible to ensure shrinkage is visually minimized by controlling the orientation of the meat fibers during processing and steering them in a vertical direction. As the burger is cooked, the reduction will be in height rather than in diameter. This means that it will look similar in size before and after cooking, giving the consumer an optimal post-purchase experience.

Freeze more efficiently

Fiber orientation not only affects the burger itself but also has the added benefit of making the freezing of end products quicker and more efficient, saving time and money during the production process.

How can you control it?

There are a number of ways to control fiber orientation. The most innovative methods involve combining a high level of control over the meat mass with low pressure forming technology. This allows a final grind to be made and fibers to be precisely steered when the patty is formed.

Marel's team of burger experts can work closely with you to find the best way possible to create your required product. We do this by applying our deep-rooted knowledge of food technology and in-depth understanding of further processing.

For more information, visit www.marel.com/burgers



SUCCESSFUL PRODUCTION OF FROZEN FOOD ISN'T EASY

For consumers — ready meals and frozen foods are convenient and easy to prepare. But for processors — successful production of them can be a challenging and complex process.

To begin with, a frozen food production line must operate in a very precise environment. Keeping the products frozen throughout the production process is critical, and there are many places where

contamination, product damage and interrupted production can occur.

In the coming years, the frozen food market is expected to experience high growth in the Middle East. Choosing the right equipment — and the right process — for your unique frozen food application is critical to achieving success, and profitability.

If you have a new frozen food project or are interested

in optimising your existing production line; working with an industry expert is the quickest and easiest way to gain access to years of food industry experience, and market leading solutions.

Avoid a sticky situation!

Conveying frozen food during processing is considered challenging because it can damage the product, disrupt its coatings, and expose it



to contamination. The ideal conveyors for frozen foods are gentle, powerful and built for simple sanitation in a wash down environment.

Preventing your product from 'sticking' is critical to keep the production line flowing and preventing product breakage or segregation in the pan. Because frozen foods are prone to condensation, this issue becomes intensified for frozen food processors.

When condensation builds up (through the course of production) it can cause the product to stick to the pan and/or itself. For many processors in this region — working in an extremely hot climate — this is a daily challenge which impacts productivity and has the potential to compromise the quality and



Water-proof design of the drives on FastBack conveyors helps you reach a higher level of sanitisation and is perfect for frozen food applications.

safety of their products.

FastBack for Frozen Food Products

The FastBack® G3 series of horizontal motion conveyors — from equipment supplier Heat and Control — is becoming a popular equipment choice for processors of frozen foods. The company says many processors in the region are looking for solutions which can produce consistently high-quality food products, increase production rates, offer high efficiency and long running times, with easy sanitation for their frozen food application.

The FastBack brand is famous for its patented ability to gently transport products by cycling through a slow-forward and fast-back horizontal motion — which neither damages the product nor disturbs the coatings. This is ideal for frozen food applications, and FastBack conveyors also provide the industry's fastest product travel rates, while maximising product distribution efficiency.

FastBack conveyors are well recognised for their ability to reliably convey hard-to-handle products while being energy efficient, quiet, versatile, with

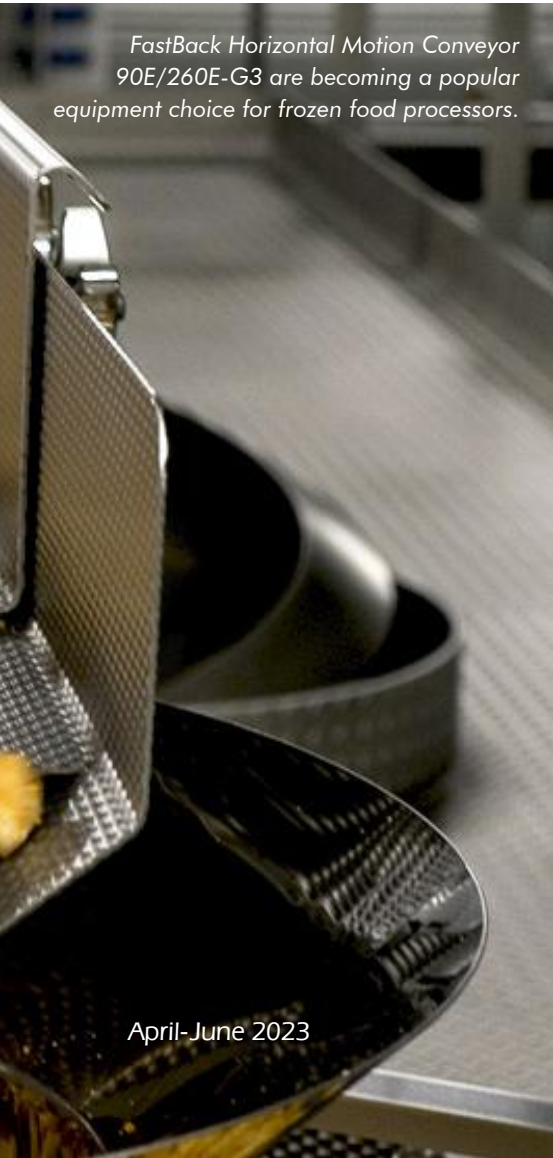
a 5-year drive train warranty.

Processors of frozen foods have the option of a 260E-G3 or 90E drive base, which is dependent on their application, and required pan size/type.

A key benefit of the G3 series for frozen food applications — is a water-proof design of the drive base — which offers a higher benchmark for sanitary conveying for the frozen food production environment. The stainless-steel drives are completely enclosed and have a fan-cooled motor package that is external to the drive to protect against dust and water spray.

Both models are completely sealed, with IP65-rated enclosure, and are built for high-volume production in washdown environments with simple sanitation. In addition to frozen food products, FastBack conveyors are ideal for other challenging products such as salads, snacks, fresh chicken, cookies, candies, and more. Further applications include meat, poultry, meat alternative products, French fries, potato chips, snack foods, bakery foods, confectionary, cereal and pet food.

For more information, visit www.heatandcontrol.com



FastBack Horizontal Motion Conveyor 90E/260E-G3 are becoming a popular equipment choice for frozen food processors.



HYBRID FILM: FULL SHRINK AND CUT IN ALL DIRECTIONS!

A Japanese company Gunze is a leading manufacturer of heat shrink film for packaging with more than 30% share of its domestic market. The production facilities and offices are located in Japan, the United States, China, and Vietnam. Their prime product “Fancywrap” hybrid film is the industry’s only shrink film and is widely used all over the country. The hybrid styrene heat shrink film is a multi-layered film of OPS (oriented polystyrene) and PET

(polyethylene terephthalate). By utilizing their original technology, the film has both advantages of OPS and PET. Ms. Chihiro Yoshioka, a sales and marketing representative of Gunze says, “Hybrid film is the best film suitable for full-shrinking food, cosmetics, and toiletry products.”

1. Full-body and 360-degree design

Hybrid film enables the full-shrinking appearance of various

types of bottles.

HDPE (high-density polyethylene), PET, PP (polypropylene), and glass are mainly used for bottles. The bottles can easily deform using hot air tunnels if the temperature is too high, and it will cause the film to shrink more than the preferred degree. Hybrid film can be finished beautifully at a lower temperature than other film material types.

Chihiro claims, “The gradual and gentle shrinkage curve at 60 degrees Celsius at the beginning to the middle shrinking process can reduce wrinkles, strains, and color distortion on the labels.” She also points out that it will also contribute to consuming less time and energy, and a lower rate of defective products.

Furthermore, because of its lower shrink stress, hybrid film can reduce “smiling” or “frowning” on the edge of labels. If these effects are found, the appearance of products might get worse and require a little more dimension of labels to solve the issue.

No wrinkles



No smiling



Easy perforation



Composition	PVC	PET	PET OPS PET
Vertical			
Horizontal			

2. Perforation

Have you ever felt stressed when you peel off labels from bottles? In fact, the resin and the method of stretching film determine which direction is easier or harder to cut.

There are two main types of film widely used in food and toiletries: PVC (polyvinyl chloride) and PET. While PVC is easy to cut vertically, it has the disadvantage of cutting horizontally even with perforation. PET is difficult to cut vertically, but suitable for cutting horizontally. Hybrid film combines the properties of two different materials, PET and OPS, which makes it easier to cut perforations in both vertical and horizontal directions. It is the only film with such features in the world.

What is the advantage of perforations?

• Tamper-evident(proof):

The cap-sealing plays an important role to ensure tamper-evident. In addition, shrink film is more suitable and efficient to contain a lot of information about products. Integrated full-shrink sleeves enable you to cover from the lid to the body with a single label, and tear off from the perforation easily both vertically and horizontally.

• Easy to sort sleeves from bottles:

The brand users will be more interested in sustainable approaches, such as environmental-friendly materials and notes on packaging to encourage sorting and recycling. Adding perforation in both

directions allows you to easily sort sleeves and labels from the bottles, which can contribute to improving consumer convenience.

If you would like to see the difference in perforation of each film material, please visit Gunze's official YouTube channel.

3. Non-PVC

PVC film is highly used for food and toiletry products. However, these days many global brand users have excluded PVC in packaging due to concerns about the harmful effects of PVC. They can use hybrid film as a non-PVC-containing film with confidence.

Chihiro mentions that Gunze offers free shrinking tests with actual bottles as one of the solution proposals. Based on a number of our past case studies, they will find the root cause for the present issues and advise customers on the suitable conditions for shrinking and converting through complimentary tests. The type of bottle does not matter. It has become easier to experience the shrink performance of hybrid film by applying the actual label, and the response from customers has been excellent.

For more information, visit www.gunze.co.jp

1 Tamper-evident



2 Easy to sort sleeves from bottles





INJECTION TECHNOLOGY: A GREAT CATCH FOR SEAFOOD PRODUCTS



Following in the footsteps of the meat industry, where injecting brine is essential for products such as cured bacon, cooked ham and poultry, there is now precise technology for the brining of a variety of fish, including cod fillets, salmon and mackerel. Accurate brine distribution coupled with high frequency shaking technology helps to maximize the value of seafood products.

The effectiveness of injectors is attributable to the density of the needle pattern. Use of small needles in a dense pattern enables better process control. Flavors are locked in, shelf life is enhanced and the delicate structure of the fish remains intact.

Leading technology specialist GEA Food Solutions recommends injecting with a tight needle pattern with 2mm needles in diameter.

Seamless integration of upstream and downstream operations such as brine preparation, brine chilling and shaking systems also ensures stable product quality from the fish processor to the end-consumer.

There are many reasons for injecting fish with brine – improving flavor, increase shelf-life, yield and to reduce food safety issues for cold smoked fish. Brines include salts and additives, which help prevent bacteria like listeria taking hold – and also ensuring that a more consistent product reaches the consumer in perfect condition.

Trials of injection technology conducted by a Danish fish processing company in collaboration with GEA showed excellent results for cod fillets. The fillets were indistinguishable from fresh cod fillets but taste, mouthfeel and the general structure were all positively enhanced. Similar impressive results have been reported for salmon.

In terms of further processing, complete line solutions are available on the market. Formed products such as fish fingers can be produced using a plate forming machine which is ideal for fish as it is highly tolerant of any deviations during the process, allowing excellent structure retention, even with delicate products.

For cooked products, a three-zone spiral cooking concept can gently but thoroughly cook the fish from top to bottom and left to right. Smoking can also be incorporated during this stage, for hot-smoked salmon for example. Also GEA packaging solutions can be applied to seafood lines, using rigid and/or flexible films.

For more information visit www.gea.com

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- Product Handling

Across industries and applications, we design specialised solutions.

Bringing together leading brands in processing and packaging equipment for the value-added industry. Our fryers, ovens, branders, searers and breading/batter applications can prepare and cook the highest quality meat, poultry and seafood products. Whatever your product needs, we can meet it with precision and passion.

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