

**INSIDE** Detection, inspection  
& measurement  
Dairy alternatives  
Labelling & coding

foodanddrinktechnology.com

MARCH 2022



# The Measure Principle

Vital criteria  
for selecting  
measurement  
technology





## THE LIGHTLINE PICKERLINE

# NO MORE REASON TO PUT DECISIONS ON ICE.

ANUGA FOODTEC / Cologne

APRIL 26 – 29, 2022

HALL 7.1 / STAND C-701

WELCOME



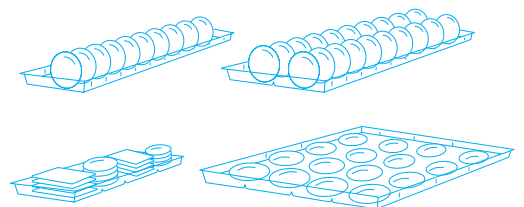
The lightline machines from Schubert can be delivered **quickly** and **are extremely attractive in terms of price**. With the preconfigured machines, customers can adapt more flexibly to market trends and significantly shorten their time-to-market.

The **LIGHTLINE PICKERLINE** consists of pick & place robots as well as one or more several tray inserters, and packs products into trays made of plastic or cardboard. It offers an affordable and **highly flexible possibility** to automate packaging processes with the **most efficient technology on the market** while ensuring the highest availability and packaging quality.

The world's leading FMCG and private label manufacturers rely on Schubert.

[www.schubert.group](http://www.schubert.group)

**TO PICK UP AND PLACE  
PRODUCTS INTO TRAYS.**



# CONTENTS

FOOD & DRINK TECHNOLOGY –  
MARCH 2022 – VOLUME 22, NO.6

## REGULARS

- 6 The month
- 10 Ratty's Reflections
- 11 On the move



- 15 Upcoming  
50 60 second  
interview...David  
MacDonald, owner  
and director of Cullen  
Eco-friendly Packaging

## TRENDING

- 14 Freezing is believing  
As vegan brands struggle with supply chain shortages, could a move to frozen be a viable and sustainable solution? Neil Hansford, food packaging and cryogenic freezing expert at Air Products, explains

## EXPERT EYE

- 16 Snack to the future  
Healthy snack maker and founder of nibnibs, Susan Everitt, talks to F&DT about the 'Not Too Naughty' disruptor brand of cookies that taste like regular cookies but has health benefits

## FEATURES

### INSPECTION, DETECTION & MEASUREMENT TECHNOLOGIES

- 18 Labour issues drive demand for increased automation  
How automating processes can provide long term solutions for end-of-line operations

- 20 Location, location, location  
Correct placement of an X-ray inspection system can be a critical factor in achieving the best food quality and safety, explains Sibtain Naqvi of Ishida Europe
- 22 Enhanced radar technology meets challenges of food and drink production  
How do non-contacting radar transmitters comply with the industry's demanding requirements and provide manufacturers with a compact, cost-effective and highly accurate level measurement solution? Felix Johansson, solutions engineer for Emerson's radar level business, explains
- 26 The right balance  
Investment in x-ray inspection can drive gains in product integrity

## DAIRY ALTERNATIVES

- 28 What's next for dairy alternatives?  
Nutrition and curiosity are now coming into consideration for consumers purchasing plant-based products, Lorraine Kelly, category manager, Synergy Flavours tells *Food & Drink Technology*
- 30 Influences behind plant-based alternatives  
Creating a product with plant-based ingredients requires the right mix of ingredients, writes Mercedes Brighenti, senior application specialist dairy & frozen desserts EMEA
- 32 Appetite for change  
What key attributes and opportunities can food and drink manufacturers exploit to maintain interest in the growing category? Robin Redelin, senior manager, category marketing for dairy & dairy alternative, EMEA, explores the options

## LABELLING & CODING

- 34 Connecting the value chain through packaging innovation  
Traceability is essential to communicate brand commitments

INSIDE  
Detection, inspection  
& measurement  
Dairy alternatives  
Labelling & coding

foodanddrinktechnology.com  
MARCH 2022



to net zero carbon emissions, Berit Hoffmann, marketing director North Europe, Tetra Pak, tells Food & Drink Technology

- 36 Ink development for food-contact materials  
How navigating consumer demands in a changing regulatory landscape can pay dividends

## PREVIEW – ANUGA FOODTEC

- 38 In full swing  
Anuga FoodTec will open its gates, with a theme of digitalisation, and “efficient solutions for the food industry”, as well as putting the focus on alternative protein sources

## REVIEW – PROSWEETS

- 44 ProSweets confirms urge for flexibility  
After a two-year break, ProSweets, and ISM return. Dominique Huret at Cape Decision, Belgium, reports on trade fairs covering the entire value chain in the production of sweets and snacks

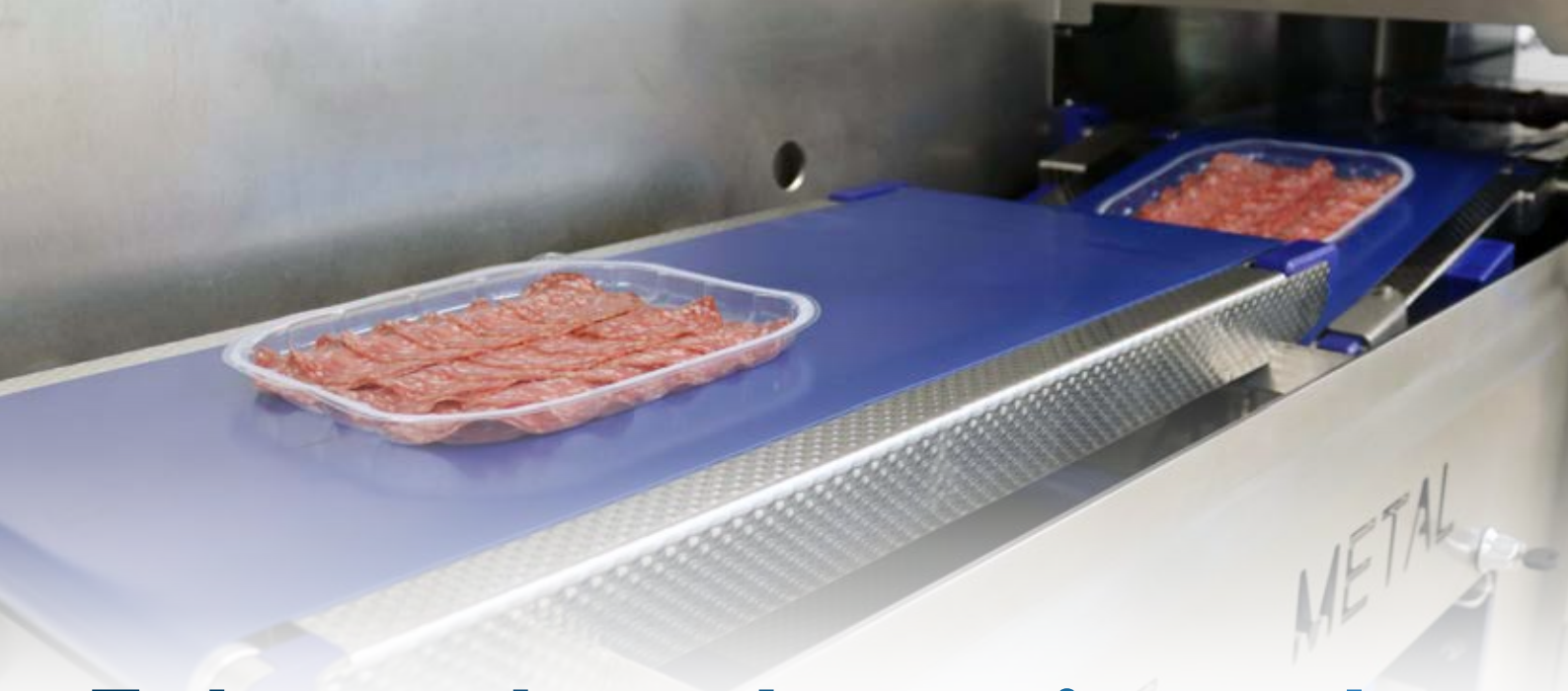
## OUR PEOPLE

- 42 Group quality  
Muriel Vanoli, head of quality & compliance at St Pierre Groupe sat down to find out more about her career to date

## CLASSIFIED

- 47 Supplier's Guide





# Enhance brand security and ensure regulation compliance

The range of high-speed inspection equipment from Sparc Systems combines cutting-edge detection and checkweighing technologies with innovative inspection functionalities for greater security and regulation compliance.

The systems are capable of accepting or rejecting products at a line speed of up to 200 packs per minute with pin-point accuracy and can be combined with the SparcEye vision inspection system.

- ✓ Compliance with all major retailer COPs
- ✓ Live data, QA reports and batch information
- ✓ Accurate and consistent quality control
- ✓ Compact, space-saving footprint



Interfood Technology is the exclusive UK & Ireland distributor and service partner for the leading manufacturers of processing equipment. From standalone industrial food processing equipment to complete whole-line solutions, we offer an unrivalled range of machinery and support services from a single source.

[interfoodtechnology.com](http://interfoodtechnology.com)





**EDITORIAL DIRECTOR**

Sarah McRitchie  
sarah@bellpublishing.com

**EDITOR**

Rodney Jack  
rodney@bellpublishing.com

**DIGITAL EDITOR**

Alex Rivers  
arivers@bellpublishing.com

**EDITORIAL ASSISTANT**

Kathryn Brand  
kathryn@bellpublishing.com

**DESIGNER**

Jackie Purnell  
prepress@bellpublishing.com

**SALES MANAGER**

Rhea Sethi  
rhea@bellpublishing.com

**EXHIBITIONS MANAGER**

Chris Seldon  
chris@bellpublishing.com

**CIRCULATION AND MARKETING MANAGER**

Richard Johnson  
richard@bellpublishing.com

**ACCOUNTS**

Yee Yau  
accounts@bellpublishing.com

**PUBLISHER**

Mark Neilson  
mark@bellpublishing.com

**PUBLISHING DIRECTOR**

Neil McRitchie  
neil@bellpublishing.com

**EDITORIAL & SALES OFFICE**

The Maltings, 57 Bath Street,  
Gravesend Kent DA11 0DF, UK  
Tel: +44 1474 532 202  
Fax: +44 1474 532 203  
bellpublishing.com

©Bell Publishing 2022

Published by: Bell Publishing Ltd.  
No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior written permission of Bell Publishing Ltd.

Printed in the UK by Buxton Press  
ISSN 1743-4874

# Sharing the inflation burden

The world had been kept guessing right up until the point that missiles began raining down on Ukraine. Even with more than 100,000 troops poised on Ukraine's borders, it was never certain to many observers that the Russian president would act on his threats to invade — until he did. Now, uncertainty reigns. The Food and Drink Federation (FDF) has warned that the Ukraine invasion will impact global food supplies "key in UK food production". The warning comes as Russia ordered a full-scale invasion closing in on Ukraine's capital.

With the war escalating, economic repercussions are expected globally due to Ukraine's disrupted exports. All this comes when the price of commodities such as vegetable oil and maize will rise amid a troubling inflationary picture.

Food and drink manufacturers will have little option but to try to minimise any knock-on effects. It will come as no surprise that after the last two years many companies will have to change their world views and produce agile responses and action plans to meet their objectives. The current and visible reality will continue in the short term, requiring adjustments in the way they work, their processes, equipment and tools, and how professionals get ready to answer needs and challenges, alongside continuing fluctuations in all environments, both internal and external.

"The outlook for this year suggests we are sailing into choppy macroeconomic waters," comments Ananda Roy, SVP, strategic growth insights, IRI International.

Just because inflation is uncomfortably high, do not expect that to last forever. Forecasters see

inflation drifting down over 2022. Most people see inflation heading lower. The question is how much lower and how long will it take?

Consumers are all important. Can industry find a way to tap into rapidly changing consumer behaviour in the meantime? Shoppers have access to a multitude of resources to determine where they shop, how much and how often they buy, and whether to defer a purchase or even to leave a category for a short period or altogether. Too often, the rise in costs caused by inflation is passed down to the consumer. But companies will need to find ways to keep the doors open while also keeping those inflation costs from impacting customers. As long as inflation continues to be a threat, it's important for businesses to do their best to avoid alienating their customers. Those who can find ways to share in the burden are more likely to cultivate loyalty.

**Rodney Jack, Editor,  
Food & Drink Technology**

**SUBSCRIPTIONS**

Includes 10 issues delivered direct to any address worldwide, full digital access to Library Archive, digital magazine in PDF or interactive format, and weekly newsletter. 1 Year Price: £100 UK, €112 Europe, \$144 Rest of world

**F&D  
TECHNOLOGY**

[foodanddrinktechnology.com/subscribe](http://foodanddrinktechnology.com/subscribe)

**Editorial Advisory Board****Steve Osborn**

Principal Consultant,  
The Aurora Ceres Partnership

**Richard Ratcliffe**

Food innovation consultant

**Tim Rycroft**

Corporate Affairs Director,  
Food and Drink Federation (FDF)

**Fiona Kibby**

Director, Society of Food Hygiene  
and Technology (SOFHT)

**Jon Poole Chief Executive,**

Institute of Food Science &  
Technology (IFST)

**Professor Lisa Jack**

Co-ordinator,  
Food Fraud Group/Gate to Plate,  
University of Portsmouth



**LinkedIn**

Follow @Bell\_Publishing on Twitter or LinkedIn  
for regular snapshots from all of our magazines.



## Farmers key to sustainability, says Arla MD

Farmers should be at the centre of tackling the scale of the challenge posed by finding a way to feed the world while protecting the planet.

According to Arla managing director, Ash Amirahmadi, this year's keynote, speaking at the City Food Lecture in February, the farming industry can help address acceleration to sustainable production as well as help find the talent to enable sustainability.

The event provided an opportunity for discussion and debate on current and future food issues and to encourage innovative thinking about the ways to tackle the key challenges and opportunities facing the industry.

Amirahmadi shared his thoughts and views on how the food sector can shape its role and deliver on its core purpose over the next, vitally important, decade for the industry. He said the connection between consumers and farmers needed to be more in sync to move quickly to tackle trends and improve sustainability.

The Arla boss talked about the accessibility, nutrition and affordability of food, which all have to be considered when supplying UK and global customers and consumers, alongside the all-important environmental impact of food production.

He made special mention of upcoming regulation from government to force change in terms of action on sustainability, in addition to industry embracing technology as a driver in becoming more sustainably productive.

## IFST Spring Conference 2022 to explore how the food sector is 'Minding the Gap'

Institute of Food Science & Technology (IFST) has announced that its Spring Conference 2022 (SC22) will take place from 4 till 6 May 2022.

IFST will seek to provide answers to 'how can we communicate better to consumers about how their food is produced', 'what skills are needed by the sector going forward' and 'which technologies will be key to developing a sustainable, agile and productive food sector'.

Members and guests have the opportunity to meet in person at our 'IFST Spring Lecture' with guest speaker, Professor Robin May, Chief Scientific Adviser to the Food Standards Agency in Birmingham on 25 April where he will address the challenge of 'Transparency and Risk Communication in a Global Food System'.

Following that special in-person event, IFST's virtual Spring Conference will take place from 4-6 May. The event entitled: 'Minding the Gap: Communication | Skills | Technologies' will bring together internationally recognised experts who will examine three gaps in the understanding of:

- How we communicate food science to the public
- Skills and competencies food technical professionals need, to pivot into the future
- Technologies taking us forward - a fascinating line-up of case studies illustrating innovations in cyber security, packaging and sustainability

IFST's upcoming Spring Conference, SC22, provides all attendees with a unique opportunity to be informed, network with fellow delegates and exhibitors, be inspired by panel discussions and case studies, showcasing innovative science and technologies from across wide range of disciplines.

More details of the programme can be found on our website: [www.ifst.org/sc22](http://www.ifst.org/sc22)

Emma Weston, Associate Professor Nottingham University (Division of Food Nutrition and Dietetics, School of Biosciences) will join the discussion about



the gap in future skills/professional development, on 5 May. She said: "I'm looking forward to the opportunity to discuss with the food industry as a whole in IFST Spring Conference about skills needs for future success. Our image currently does us no credit in drawing in these skills; at school-age when choosing a career or later in life when retraining for new opportunities. How we can work together to encourage new talent to choose the right study or training pathways to start a rewarding journey with us?"

On 6 May, Victoria Fuller, European Open Innovation Lead at Mondelez, will join the session on 'CPD for food professionals'. On her session, she mentions: "This session will introduce you to what Open Innovation is, provide an insight into what a role in Open Innovation at Mondelez looks like and why it is important. In Mondelez's quest to enable consumers to snack right, we realise that great technology solutions come from many sources. During the session, I will share Mondelez's top technical needs with you and am actively seeking winning partnerships to tell us how we can solve them. Let's lead the future of snacking together!" Other confirmed speakers include:

- Michelle Patel – FSA
- Jon Alexander – author of 'Citizens'
- Paul Brown – Founder BOL Foods
- Louise Cairns – National Skills Academy for Food and Drink
- Laura Fernandez – EUFIC
- Wayne Martindale – National Centre for Food Manufacturing
- Dr Louise Durant – BNF
- Dr Michael Walker – Consultant
- Lucia Capogna – AEGIS Certification Services (ACS)
- Tom Sheldon – Science Media Centre
- Anita Kinsey – Pret A Manger
- Tom Hollands – Raynor Foods

Jon Poole, IFST's chief executive said: "These topics are rarely covered during technical conferences but so important to the future success of the food sector."



# Added and free sugars should be as low as possible

Intakes of added and free sugars should be as low as possible as part of a nutritionally adequate diet in line with current recommendations, according to EFSA's scientists who have completed their comprehensive safety assessment of sugars in the diet and their potential links to health problems. The scientific evidence did not set a tolerable upper intake level for dietary sugars.

EFSA defined 'added sugars' as refined sugars used in food preparation and as table sugar. 'Free sugars' includes 'added sugars' plus those naturally present in honey and syrups, as well as in fruit and vegetable juices and juice concentrates. 'Total sugars' are all sugars present in the diet, including those naturally present in fruit, vegetables, and milk.

Prof. Dominique Turck, the chair of EFSA's panel of nutrition experts who carried out the assessment, stated: "We underlined there are uncertainties about chronic disease risk for people whose consumption of added and free sugars is below 10% of their total energy intake. This is due to the scarcity of studies at doses in this range. Data limitations also meant it was not possible to compare the effects of sugars classified as added or free, overall."

"Together with other relevant science-based reports, safety assessment of dietary sugars will be a useful source when reviewing recommendations for sugar intake and food-based dietary guidelines.



## Food Standards Scotland launches online guide to encourage balanced diet

Food Standards Scotland (FSS) has introduced a new healthy eating campaign that looks to encourage people to make "simple changes to help improve their diet."

FSS' new online guide – Eat Well, Your Way – aims to help tackle Scotland's poor diet by offering a variety of "straightforward steps and useful advice." The guide also claims to cater for those shopping on a tight budget and consumers who are more sustainability conscious.

The FSS campaign will also feature a TV advertisement, outdoor media, experiential activity in shopping centres and a targeted digital campaign.

Dr Gillian Purdon, head of nutrition at

FSS, said: "This is a new resource which focuses on practical advice on how to adopt healthier options. It is designed so that people can find inspiration and make changes that suit their circumstances, as we know that making lots of changes at once isn't always sustainable."

The guide covers what FSS highlighted as 'three key areas' of consumer behaviour: shopping, cooking and eating out. FSS added that it plans to further tailor and evolve Eat Well, Your Way in the coming months. In addition, a new FSS report that aims to shed light on the impact lockdown and the wider pandemic has had on Scotland's diet is due to be published

## IN BRIEF

### Kraft Heinz launches into plant-based market

The Kraft Heinz Company has announced a joint venture with food start-up TheNotCompany (NoCo), to strengthen both companies' plant-based portfolios.

The joint venture, which will operate under the control of Kraft Heinz as The Kraft Heinz Not Company. Maker of plant-based meat and dairy products NotCo is expected to bring its technology-driven approach to the project.

### Denholm gains funding

Denholm Seafoods, a fish processing business in Scotland, received £15 million funding from HSBC UK to support its international growth plans. UK Export Finance backed the grant (UKEF) and the General Export Facility (GEF). The fish business, which processes herring and mackerel, wants to expand in European and Asian markets.

### Givaudan mimics fat

Givaudan has launched its patent-pending PrimeLock+, a vegan-friendly integrated solution that mimics animal fat cells in plant-based product development. "PrimeLock+ is a flavoured matrix which contains 25% coconut oil encapsulated in a continuous matrix, which ensures that most of the coconut oil and flavour is retained during the cooking process," said Flavio Garofalo, global category director of savoury and naturals.

### Britvic and Xampla form packaging partnership

Britvic is working with tech company Xampla to create greener packaging. After 15 years of Cambridge research, Xampla says it has developed the world's first plant protein material for commercial use. This material uses pea protein to make microscopic capsules that protect vitamins within liquid, stopping them from being broken down by sunlight. Britvic's research shows that people are 40 percent more likely to recycle clear bottles over coloured ones. According to Xampla, the downside of clear bottles is that they let more UV rays in, losing the necessary protection for vitamin D.

## McCormick keeps condiments flowing

McCormick EMEA has installed a multi-million-pound ingredient storage solution as it looks for future growth. Using the services of European Process Plant (EPP), McCormick opted for a series of Shick Esteve dry powder silos for storage of ingredients such as starches, sugar and salt. A further series of stainless steel liquid tanks were installed to store liquid additions before processing. The 93,000m<sup>2</sup> site will employ approximately 300 people and it is on track to become McCormick's first Net Zero Carbon Building, using the UKGBC Net Zero Carbon Buildings Framework.

"We have been very pleased with the work from EPP on this important aspect of the project, and our 'factory of the future' in Peterborough has progressed well, as we seek future growth of our Flavour Solutions," said Clive Knott, project manager, McCormick. "A project of this size and scale requires great attention to detail, and the excellent relationship we have established with EPP has been a real asset throughout. We are proud to have used the latest manufacturing technology to deliver class-leading performance."

Shick Esteve outdoor silos are made in-house from weather resistant aluminium



alloy which is maintenance-free and their appearance does not deteriorate over time. In addition to the storage system, EPP installed a bespoke Shick Esteve solution to deliver stored ingredients to the process kitchens. EPP also installed a minor ingredients system to transport additional ingredients when required.

"Having a local UK representation and service team was very important to McCormick for this project," said Michael Lomas, technical sales manager, EPP. "It was an especially challenging project given it occurred during the pandemic when travel wasn't possible, so we were unable to physically meet, or inspect the equipment in person as we would usually do on a visit. Thankfully, McCormick was able to call on visual guidance technology which allowed Shick Esteve employees to show the equipment for inspection remotely via live video before it was shipped to the UK. We're thrilled that McCormick has been pleased with the work so far, and we are excited to play our part in its ambitious plans."

## Blendhub and Essence Food partner to develop nutritionally valuable products

Blendhub has added Essence Food, a company specialising in the transformation of surplus food to reduce waste, as a partner to collaborate on developing affordable, nutritional food products.

Both companies share the vision of optimising the use of raw materials for the entry of new ingredients into the value chain by transforming them into products with high nutritional value and longer shelf life.

"We will work together to integrate these ingredients in novel formulations and explore new ways to reach the industry and final consumers with a proposal that has full traceability and transparency from the origin," says Marcio Barradas, founder of Essence Food. The new formulations will be valid for 3D printing.

Essence Food offers its technology and expertise in lyophilisation and Blendhub offers its food-as-a-service platform to help food companies design, produce and launch new food products; and digitised food quality to validate new ingredients and formulations using chemometric brain software. Other strategic partners have recently joined Blendhub such as Nucaps, a company developing functional ingredients through nanotechnology, and Qina, a platform for personalised nutrition.



## EU exports take a hit with vet shortages

A dramatic drop in the number of registrants coming to work in the UK to sign off health certificates for certain food products is costing the food industry up to £60 million (US\$81 million) in costs.

According to data released by the Royal College of Veterinary Surgeons (RCVS), the annual number of registrants coming to work in the UK fell by 68 per cent from 1132 in 2019 to just 364 in 2021. The British Veterinary Association (BVA), which is the UK's largest membership body for vets, is warning that this drop, which can be attributed in part to the end of free movement and the impacts of the pandemic, could result in wide-ranging direct and knock-on impacts across the sector, especially in areas such as international trade and public health.

The continued financial and human costs of post-Brexit red tape is also being reported by food and feed trade associations, haulers, farmers and veterinary and environmental health professional organisations.

They claim in just one year (to November 2021), the new Export Health Certificates (EHCs) requirements imposed on exports to the EU are estimated to have cost at least £60 million (US\$81 million) in paperwork. More than 288 thousand EHC applications required the equivalent of 580,000 certifier hours, approximately 285 certifier years. According to SPS, the UK's food industry would need to generate around £3 billion (US\$ 4 billion) of total additional sales in the first year of Brexit to cover the additional costs.

James Russell, BVA senior vice president, said he recognised government recognition of the situation, with measures such as more vet school places and better digitisation of the certification process to relieve pressures, but called for urgent action.

"The potential consequences are worrying, he said. "If we can't find long-term solutions to veterinary workforce shortages we will see impacts on animal welfare, public health, and international trade."



## Tooling up the next generation of workers

A new Skills Toolkit has been launched to help food and drink manufacturers across the UK access resources and information to recruit jobseekers of all ages from every part of the country.

From Apprenticeships to T-Levels to Skills Bootcamps, the toolkit, published by the Food and Drink Federation (FDF) during National Apprenticeship Week, will offer support to companies in the sector to understand and identify the job finding and training schemes best suited to help them build and upskill their workforce.

The toolkit will provide information on how a food and drink company can source jobseekers for apprenticeship roles and how to access a £1,000 grant for employees take on through the scheme.

Caroline Keohane, head of industry growth, the Food and Drink Federation, said: "Our new Skills Toolkit aims to give employers the knowledge of how to invest in the skills they need, both by bringing in new talent and upskilling the existing workforce. It is easily accessible and is a less time-consuming way for businesses to match talent to opportunity."

Jill Coyle, apprenticeship manager at Nestlé and chair of the FDF's Education and Skills Forum, said: "The FDF toolkit empowers employers of all sizes, across all geographies by bringing together critical information in order to determine which programme can best help them recruit and upskill their workforces."



## Continuing lockdown habits to bolster frozen category

Retail frozen food sales have grown by 13.5%, compared to pre-pandemic levels, suggesting that consumers have fallen back in love with their freezers, says The Frozen Food Report from the BFFF.

BFFF chief executive, Richard Harrow, said in a retail frozen food market now worth £7.1bn, frozen has added nearly £850m worth of sales since 2019 (value growth of +13.5% and volume growth of +9.2%). "With the total grocery market broadly flat, frozen sales have significantly outperformed the market," he added.

According to Kantar ice cream is the largest single category in frozen, worth £1.3bn to retailers and accounting for 18.6% of their overall frozen food sales, up from 17.3% in 2019. Frozen fish broke through the £1bn barrier in 2020 and 2021's sales represent a 16.4% (£141.2m) gain in just two years. Vegan and vegetarian products have achieved 16.8% growth since 2019, contributing to a £237.4m (19.8%) growth in sales of savoury foods in the same period. Another factor driving frozen sales is food waste. The majority of shoppers (62%) are now influenced in their food and drink purchases by sustainability issues and frozen food, with its proven ability to cut food waste.



## MAJOR DEALS

### Kerry deals aid expansion

Kerry is investing €200m in two acquisitions in the biotechnology industry to expand its expertise, technology portfolio and manufacturing capabilities.

Kerry has agreed a deal to acquire German biotechnology company c-LEcta for €137m and had also acquired the Mexican-based enzyme manufacturer Enmex. C-LEcta specialises in precision fermentation, optimised bio-processing and bio-transformation for the creation of high-value targeted enzymes and ingredients. Enmex supplies multiple bio-process solutions.

### KKR takes stake in Refresco

Refresco Group, one of the largest independent beverage contract manufacturers in the world, and KKR, a global investment firm, have announced that KKR has signed a definitive agreement to acquire a majority stake in Refresco, with PAI Partners and British Columbia Investment Management Corporation. The Company will manufacture high quality products to meet demand for sustainable beverage solutions.

### Solina ties up Den norske Kryddermølle deal

Solina, a leading European producer of savoury ingredients solutions for the food industry, has completed the acquisition of Den norske Kryddermølle.

Located in Larvik (Norway) the company runs a dry blending plant providing tailor-made dry blends for meat, ready meal and snacks. The acquisition allows Solina to strengthen its physical presence with a production site in Norway.

### CSM Ingredients acquires Hi-Food

CSM Ingredients has acquired Hi-Food, a specialist in the research, development and production of natural origin ingredients. Hi-Food will reinvest the proceeds into the areas of R&D and commercial management. In the coming months, Hi-Food will complete the construction of a modern and advanced plants for the production and processing of natural, plant-based ingredients, free of allergens and synthetic additives.

# Foreign Materials: A Perspective



Richard Ratcliffe is a food innovation consultant and an editorial board member of *Food & Drink Technology*

**T**his edition of *FD&T* is focussed on foreign bodies in food and our editor suggested I might like to shine a light on this subject from the perspective of my 50 years in the industry. It all goes back to food law lectures at University and the prosecutions of food companies against the Food and Drugs Act 1955: the stark fact that selling foods containing foreign material is a criminal offence.

There is no doubt that in the intervening period, measures taken by the industry to ensure compliance with the Act and subsequent food law have changed dramatically. In my early days in Birds Eye, peas, as one example, were inspected by armies of women as they passed across conveyors, so that stones and daisy heads could be removed. The company still received hundreds of complaints per annum for such materials in packets of peas along with wild claims for broken teeth and huge dental bills! Few though resulted in prosecutions but that possibility was always in the background. Nowadays it's safe to say that no women (armies or otherwise!) inspect peas at the time of harvest. All peas after freezing now pass through electronic sorting machines at astonishing speeds so that errant stones and the like can be blown out by jets of compressed air. Most processed vegetables (carrots, chips, crisps etc) are now similarly sorted.

One true and funny story about customer complaints goes back to my early days – probably the late 1960s – when all peas were sold in plate-frozen cartons packed during the six week pea season rather than as the “free flowing” polybag packs we know today. To pack tens of thousands of tonnes of peas in six weeks required an enormous swell in the size of the labour force at the factories and students on University vacations made up the bulk of these. A student or students with a typical wry sense of humour placed small paper messages in a number of packs in between the carton and the printed wax paper overwrap stating: “Help I am being held prisoner in a cold store in Grimsby please get me out!”. Some of these packs would not be sold until months after

the season so letters from customers started to roll in long after the perpetrators had returned to their seats of learning.

Apologies and refund postal orders were duly sent to the complainants: most were amused and no harm was done. It lightened the load on those handling the many complaints received by all big food manufacturers.

Handling complaints – usually about foreign material contamination – took up a lot of my time latterly, both as head of technical in Tate & Lyle and then with client companies when I was advising on quality assurance. It was the investigations to ensure that effective corrective actions could be taken which often needed the perseverance of a TV detective. Black specks in sugar are now pretty much a thing of the past thanks again to electronic detection but fragments of broken glass were always my worst nightmare. We had one such complaint which looked very much as though it would result in prosecution. One of my team visited the customer, who fortunately was in the London area and discussing the matter with the lady of the house in her kitchen he noticed that her sugar bowl had a piece of the rim missing. Pulling out the returned piece of glass he found that, like Cinderella's glass slipper, it “fitted perfectly”. A red face but laughter on both sides. Another time a large bolt returned from an Icing Sugar customer was found to exactly match one which had come off the packing machine. The investigation there centred round the fact that the metal detector had not picked it up. Procedures were changed: the complainant had enabled us to fix a shortcoming in our operation. Good out of bad. Ticks in boxes!

Twenty five years ago, when I was responsible for complaint investigation at a client company importing canned fish and vegetable goods from (mostly) third world countries, procedures in those nations were not as tight as they are today and world wide application of audit regimes such as the BRC Global Standard had not gone far beyond our own shores. There were, then, too many genuine cries of anguish from consumers



about foreign materials. Some customers, however, could be less than genuine on occasion. Referring back to the detective skills required, I dealt with a complaint one Monday morning in Harrow and as I re-read the letter I laughed and shouted "Gotcha" much to the amusement of my commercial colleagues (some of whom were never very sure what their quality consultant did on his fortnightly visits to the office!). The handwriting was distinctive and the ink a strange shade of green. I recalled similar features about two months previously and dug through the files to find a letter of complaint from the same address: same ink, same handwriting but different name and a different product – not even the same branding – the company ran two or three brand

identities. Further digging in the files, based on a vague recollection in the back of my mind, turned up another letter: same handwriting, same ink, same name as the first but a different address in the same East Midland city. Clever! Not clever enough though. I laid out the three letters side-by-side on my desk and called the finance director over and talked him through the bizarre trail. "Ah!" he said, "Now I know what we pay you to do!" Needless to say the fourth complaint letter received a very different type of reply and no £5 cheque by way of apology. It wasn't the £5 cheques we were worried about, it was the prospective fines and bad publicity from a court appearance. Which is where we started with the Food & Drugs Act! [71]

## ON THE MOVE

### California Prune Board appoints brand ambassador



The California Prune Board (CPB) has appointed professional nutritionist and author, Jo Travers as its new health brand ambassador. Also known as 'The London Nutritionist', registered dietitian Jo Travers BSc RD MBDA will work with

the board to help raise awareness of the health benefits of California Prunes across the UK and European markets. Jo is author of The Bone-Strength Plan, and The Low-Fad Diet.

### Florian Schneider strengthens general management

Florian Schneider has taken over the position as managing director sales and marketing/CCO of Ziemann Holvrieka. He succeeds Lars Roed Nielsen, who moved as CEO to the sister company Ziemann Holvrieka Asia in China. Florian Schneider (left) is a



trained brewer and maltster. After his vocational training, he worked for several years in various Bavarian breweries.

### Nim's Fruit Crisps founder joins East Malling Trust

An entrepreneur at the heart of a revolution in healthy fruit-based snacks has joined the board of East Malling Trust, the charity dedicated to promoting horticultural research. Nimisha Raja – the driving force behind the success of Nim's Fruit Crisps – will bring her industry knowledge to help identify opportunities for the UK's fruit research sector and the strengthening of supply chains for fruit growers and food and drink manufacturers.

Welcoming Nimisha to the board, Oliver Doubleday, chairman of East Malling Trust, said: "Nimisha's arrival will help us strengthen the connection between research and growing to secure opportunities for manufacturers to close the loop and bring new fruit-based products to the market. East Malling is synonymous with advances in soft and top fruit production, and we are delighted to have Nimisha join the board to help us continue our journey."



### Importaco Besana's new retail commercial director

Importaco Besana has appointed Nicola Tucci as retail commercial director. Before joining the group, Tucci held previous roles with big food brands



Nestle and Coca-Cola Sicily, where at the latter he was the interim executive director. Importaco Besana hopes he will use his previous experience to drive and grow the business further and reinforce its strategy. Besana's CEO, Riccardo Calcagni, is confident that Tucci's contribution will help lead to the growth of the business on a global level.

## Simply Roasted announces chief commercial officer



Simply Roasted, the game-changing HFSS compliant crisp range, has appointed Rhys Harvey as chief commercial officer.

Harvey joins Simply Roasted from Plenish, the FMCG company making plant-based drinks, where he spent three years leading the sales, finance and operations departments.

He was responsible for the successful trade sale to Britvic and, being commercially focused, helped deliver net revenue, gross margin and EBITDA growth. Prior to his time at Plenish, Harvey started his FMCG career at Popchips where he led a successful exit to KP Snacks.

## Ulma Packaging UK announces new sales hire

Ulma Packaging UK has bolstered its presence in packaging machinery markets with the hiring of Bill Anderson as its regional sales manager for



Scotland and Northern Ireland. Anderson, who has enjoyed a 38-year career in capital equipment and material sales and is highly experienced in shrink and skin packaging applications, will help meet burgeoning demand for packaging solutions. His remit will involve assisting customers across Scotland and Northern Ireland in accessing Ulma's extensive range in the produce and non-produce sectors.

## Dawn Foods appoints 2022 Student Bakery Ambassadors

As part of an ongoing partnership with University College Birmingham (UCB) to support young people entering the bakery industry, Dawn Foods has appointed its 2022 Student Ambassadors.

The new Student Ambassadors are Ellen Horsey, a final year student on UCB's Bakery and Patisserie Technology degree, and Claire Pretty, also in her final year on the same course. Krystal Jenkins, Dawn's 2021 Ambassador will continue for the beginning of this year. Vaishnavi Vora, a Dawn Student ambassador in 2019, is now employed by the company as a junior product developer.

Ellen, Claire and Krystal will be working with Dawn's application chef, Robin Loud, to create new recipes using Dawn's products, as well as blogs and insights which Dawn hopes will be beneficial to professional bakers.



Claire Pretty



Ellen Horsey



## Eriez announces vice president-international operations

Eriez has appointed Eric Nelson as vice president-international operations and business development. Nelson worked for Eriez previously, serving the company as interim managing director of Eriez-China until 2018. Nelson will collaborate in developing global business strategies and assist regional Eriez sales directors in uncovering and cultivating business opportunities across Europe, Middle East and Africa (EMEA) and Asia-Pacific (APAC) regions. He will be primarily responsible for coaching and advising local teams, with the overall goal of continuing Eriez' strategic growth plans.

## Meadow Foods appoints new chief executive

Meadow Foods, a leading supplier of value-added ingredients to the food industry, has announced the appointment of Raj Tugnait as its new CEO, which will commence in May. Mark Chantler, the current CEO, will remain part of the leadership team with a seat on the board as a non-executive director and a significant shareholder. Raj Tugnait joins with more than three decades in the food sector, most recently as CEO of Sysco Speciality Group, a division of one of the largest food businesses in the world. He started his career with an entrepreneurial family business before moving to Country Choice and then Brakes Group. He was appointed CEO of Fresh Direct Group in Sept 2016.





## Tropicana Brands Group appoints Glen Walter as CEO



Glen Walter is the new CEO for Tropicana Brands Group since 2 March 2022. The company, a recently formed joint venture between PAI

Partners and PepsiCo, markets, innovates, manufactures and distributes premium juice products across North America and Europe. Mr. Walter joins Tropicana from Mondelez International, where he was executive vice president, and president, North America from 2017-2022.

## Loma Systems appoints new regional sales manager

Loma Systems has appointed Mohamed Sacranie as a new regional sales manager for the Midlands and North East of England. Mohammed Sacranie's previous experience has been gained from within the industry, working in particular with OEMs and systems integrators. In his new role, he will report to Loma's UK sales director, Mark Jackson-Nichols, who said: "Mo's appointment represents



a great start to 2022 as we look to further bolster the team. I am delighted that he has market specific experience to hit the ground running from day one."

## New healthy snacking lead joins Glanbia Nutritionals

Glanbia Nutritionals has announced the appointment of Bernadette Grant as senior strategic product manager for healthy snacking in the EMEA region. Working alongside two other strategic product managers, Grant will be responsible for driving continued profitable growth of the snacking portfolio in the region, including customer facing support, new business development, management of the innovation pipeline, and the forward-looking strategy. Previously, she led the innovation strategy for the health portfolio of cereal products at Kellogg's.



## Dr. Oetker changes UK senior team



Georg Heerdegen Parsbo will step down as MD of Dr. Oetker UK to become a member of the International

Board of Dr. Oetker where he will assume responsibility for people & culture (HR) and also act as coach for Africa, Middle East, Asia and Australia. Johannes Rosenthal (top left) will continue as MD and also assume responsibility for the businesses UK operations in addition to his current responsibilities of supply chain, finance, admin, purchasing and IT.

John Brassington (top right), previously executive head of UK sales, is joint MD responsible for sales, marketing, category, insights & NRM, I&D, quality assurance, HR and act as coach for Dr. Oetker Ireland. Matt Pringle, previously head of sales – channel development at Dr. Oetker UK will join the leadership team as executive head of UK sales.

## Ardgowan appoints industry veteran

The Ardgowan Distillery has appointed industry veteran Mike Keiller as its new chair as the Inverclyde whisky makers gear up to build their new flagship distillery. Keiller takes over from current chairman and whisky legend Willie Philips who is standing down after four years at Ardgowan and nearly 50 years in the trade. Mike is a qualified Scottish chartered accountant whose early career began at Bell's Scotch Whisky in Perth, followed by senior finance and corporate roles at Guinness, United Distillers Europe and Diageo.



## pladis announces chief marketing office moves

pladis has announced that Asli Özen Turhan (right) will be stepping into the role of chief marketing officer UK&I, following Caroline Hipperson's appointment as vice president (VP) of business development for the global organisation. Caroline Hipperson (left), current chief marketing officer UK&I, will be joining the pladis global team as VP business development.

Asli Özen Turhan has stepped into the role of chief marketing officer (CMO) UK&I. Formerly CMO for pladis' Turkey region, Asli has extensive experience in various snacking categories at driving sustained growth through innovation and brand building.



# Freezing is believing

**As vegan brands struggle with supply chain shortages, could a move to frozen be a viable and sustainable solution? Neil Hansford, food packaging and cryogenic freezing expert at Air Products, explains**



**T**he national media has made no secret of the supply chain challenges facing vegan brands over recent weeks, with some plant-based food manufacturers reportedly stockpiling to ensure they can put products on shelves.

This surge in demand has been triggered in part by Veganuary and, in part, by a growing public consciousness of the opportunity to eat in a climate friendly way. The truth is, demand for plant-based food is growing exponentially and producers are having to think smart about how to scale up and respond to market fluctuations.

The solution could sit with a growing convergence of the plant-based food and frozen food markets. Let me explain.

Freezing is now widely accepted as a way of managing seasonality, increasing shelf-life, and reducing food waste but when it comes to the plant-based market, to date the frozen aisles have been monopolised by the major players.

For the many start-ups and SMEs in the market, it has – broadly speaking – been seen as safer to stick to chilled foods and avoid the investment in infrastructure that a move to frozen requires. This is changing though, and we are increasingly seeing our conversations with these manufacturers evolve as they look to manage both seasonal spikes and increased demand overall.


Plant-based food manufacturers exploring a move to frozen have several areas to consider – not least the fact that plant-based foods and meat analogues behave very differently to meat when frozen.

Many of the different protein types, such as pea proteins, that are currently on the market are in dehydrated form and must be mixed with

a high water content to achieve the desired end-product. For a successful forming process, these products therefore need to achieve very low temperatures fast in order to preserve the quality of the product. And, of course, in the never-ending battle to find a point of difference or USP, new forms of protein are increasingly coming to the fore – ones that have never been frozen before. Careful exploration and freezing trials are therefore critical.

All of this means that as the vegan and plant-based food market evolves, so too do freezing technologies. We're collaborating with several manufacturers to explore and trial new products and alternative freezing options. As part of this process, we have seen a move away from mechanical blast freezers to cryogenic freezing with liquid nitrogen. This offers the best all round option, in terms of scalability, speed of freeze and product quality, as well as low capital expenditure.

Excitingly, we're also exploring new technologies that combine cryogenic freezing and modified atmosphere packaging (MAP), allowing a product to be frozen at source and then allowed to defrost on the chilled counter. Not only will this help to further extend shelf-life, it will also help to overcome challenges with supply.

It's increasingly clear that consumers expect access both to meat products and plant-based foods in equal measure. By exploring options to freeze, vegan manufacturers can keep pace with that demand and ensure their products are available and competitive, year-round. 



# Upcoming events

In-Person | Online | Hybrid

## MARCH

### International Food & Drink Event

**Date:** 21-23 March

**Web:** ife.co.uk

**Location:** Excel, London

### PLMA Global 2022

**Date:** 28-31 March

**Web:** plmainternational.com/plma-global

**Location:** Online

## APRIL

### ICC2022 – Future Challenges for Cereal Science and Technology

**Date:** 25-27 April

**Location:** Vienna, Austria

**Web:** lcc2022.meetinghand.com

### Anuga FoodTec

**Date:** 26-29 April

**Web:** anugafoodtec.de

**Location:** Exhibition Centre Cologne

### Seafood Expo Global/Seafood Processing Global

**Date:** 26-28 April

**Web:** seafoodexpo.com/global

**Location:** Fira Barcelona Gran Via venue, Barcelona

## MAY

### Vitafoods Europe

**Date:** 10-12 May

**Web:** vitafoods.eu.com

**Location:** Palexpo, Geneva

### IFFA 2022

**Date:** 14-19 May

**Web:** iffa.messefrankfurt.com

**Location:** Messe Frankfurt

## JUNE

### 12th Annual European Food Sure Summit

**Date:** 14-15 June

**Web:** foodsureeurope.com

**Location:** Milan

### Nutraceuticals Europe

**Date:** 15-16 June

**Web:** nutraceuticalseurope.com

**Location:** Barcelona International Convention Centre

## JULY

### Snackex

**Date:** 6-7 July

**Web:** snackex.com

**Location:** Hamburg Fair and Congress

### Biofach 2022

**Date:** 26-29 July

**Web:** biofach.de

**Location:** Nürnberg, Germany

## SEPTEMBER

### Fish International

**Date:** 4-6 September

**Web:** Fishinternational.de

**Location:** Messe Bremen

### Future Food-Tech

**Date:** 22-23 September

**Web:** futurefoodtechlondon.com

**Location:** London, UK

### Anuga Horizon

**Date:** 06-08 September

**Web:** anuga-horizon.com

**Location:** Koelnmesse, Cologne/Hybrid



# Snack to the future



Caramelised mini cookies

As snacks continue to be a big part of daily diets, people want nutritious foods with rich, complex flavours but made with wholesome, real food ingredients. Healthy snack maker and founder of nibnibs, Susan Everitt, talks to *F&DT* about the 'Not Too Naughty' disruptor brand of cookies that taste like regular cookies but have health benefits

**Tell us a bit about your background and how you started out in your career – have you always worked in the food industry?**

I have always had a career within the food industry. I found a passion for the business really early on and always wanted to create my own brand in this field. My previous experience includes managing a deli in Harrogate, which I loved, plus over 20 years in the wine trade as well. And, yes it's as good as it sounds! We (my husband, Darren, and I) started nibnibs back in 2009 from our home kitchen with a desire to start our own business following on from our love of baking.

**Where did the idea for nibnibs come from?**

Our business sort of began back when I was managing the deli in Harrogate. We couldn't

source any cheese straws, which is of course an essential in all deli's, and so we decided to develop and supply our own range. This was the first time we had ever done anything like this, but we loved it! From there, we continued to grow and create new product lines, just learning on the job! The name itself was born from a play on the word nibbles – we wanted something that related directly to the idea of nibbles but had a unique flair as well; this was a creative brainstorm that involved wine.

**Tell us about the brand's journey and how far it has come since it was launched in 2009?**

After initially supplying cheese straws to the deli I managed, we moved on to also develop breadsticks and then biscuits too. From 2015 we grew a lot, supplying not only independents and

Hamper Companies but also 5m packs a year on United Airlines as well as Virgin Australia, British Airways, Emirates, Delta, and more. The airlines became the crux of the business, and it was a perfect pairing. The healthier cookie range, 'Not Too Naughty', have been developed over a long period to the point where they actually taste like an indulgent cookie and not a healthy alternative. This was really important to us and so it took some time to get right but it was definitely worth it in the end.

This year, the 'Not Too Naughty' cookies have been launched in Booths Supermarkets alongside Maryland Cookies and Jaffa cakes as a disrupter brand that tastes like a regular cookie but has the health benefits as well. The last development, to be launched in April, is the accolade of being a HFSS compliant cookie, something that we are very proud of.

#### As health campaigners continue to target sugary treats such as biscuits, how does nibnibs use different ingredients to fight back?

The Not Too Naughty cookies are a third less in sugar than their traditional biscuits, but around 50 per cent less than other main players in the market too. They are also high in fibre with no artificial sweeteners, colours or preservatives, reduced sugar, and palm oil free. We use oligo-fructose as a natural sugar substitute and fibre enrichment which is also a very effective prebiotic and has no Maillard reaction. The combination of all this allows us to offer consumers a delicious treat without the worry.

#### What do you believe makes nibnibs Not Too Naughty unique?

Nibnibs Not Too Naughty offers consumers a great tasting snack without the high levels of sugar but with fibre enrichment and prebiotic benefits. In addition to the taste, we also have fully recyclable packaging and HFSS compliant from April. More than anything our product truly tastes great and we're a real disruptive brand on the market.

#### What has been nibnibs biggest achievement to date?

Honestly, to create a cookie that not only tastes indulgent, but is a healthier development of the traditional cookie. It sounds impossible but we've managed to make it a reality and so that labour of love has been really rewarding for us. It's great to be able to sell a product you're really proud of and genuinely enjoy yourself.

#### How has the pandemic affected your business over the last 18 months? If there were challenges, how did you overcome any hurdles?


In March 2020 the volume dropped by 90



Darren Everitt  
and Susan Everitt,  
founders of nibnibs

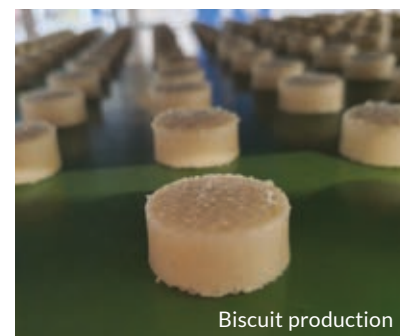
per cent and confirmed purchase orders were cancelled across most airlines, which was a big hit to the business, of course. During what has been a tricky couple of years we have picked up business making Military ration packs and contract manufacturing, however the ultimate goal is to secure more retail business and the launch at Booths has been a wonderful first step into that world. It has taken us pretty much the full 18 months to develop a pack of biscuits that are 'healthier' than the norm but still taste good. Not wanting to use anything artificial, we eventually found a natural sugar replacer that worked and most importantly was available. HFSS is the next development of the cookie.

#### What can we expect from the nibnibs brand moving forward?

There's lots more on the horizon for nibnibs, but one of the most exciting developments we have coming up is that we are expanding our healthy baked snacks globally, launching in Taiwan in March this year. We are developing more of our snack products to comply with the new government HFSS guidelines in order to offer the consumer healthier treats in the future, which is an incredibly important step in our venture. 



Cookie production



Biscuit production



Sam Cartwright, manager of Interfood's packing solutions division, considers the current significant challenges of the labour market and how automating processes can help to provide long term solutions for end-of-line operations

## Labour issues drive demand for increased automation

Machines are designed to offer quality, precision and flexibility in the automatic packing of standard and mixed variety cartons

In terms of labour shortages, the food supply chain is probably only second to the NHS in terms of media column inches. Reports suggest that there are an estimated 500,000 job vacancies across the food and drink sector. At the time of writing, the possibility for the Omicron variant of Covid to have peaked and the announcement that self-isolation will reduce from seven to five days is welcome news for the food industry in helping to alleviate staffing issues. However, the labour shortages and consequential wage inflation due to the effects of Brexit continues to impact heavily on an industry in which migrant workers traditionally represent such a significant percentage of the workforce.

Some abattoirs have been forced into operating shorter weeks and many meat processing plants have been struggling to recruit. It is therefore not surprising that the issue of plant automation has come very much to the fore.

### End-of-line

While machines have taken on many of the labour-intensive processes, an area in which they continue to be under-utilised is end-of-line. Included in this area of operation is inspection, detection, checkweighing, and case/crate packing. While manual packing of products continues to be employed,

this is probably the aspect of end-of-line which has seen the greatest degree of automation. Product recalls are the stuff of nightmares and the ever-increasing focus on food safety has meant that x-ray systems, for example, are now a much more common feature in food processing lines. After all, even the most skilled of human checkers cannot see inside the product.

### X-ray and checkweighing

'Integration' continues to be a focus in food processing machinery in general – why use two or even three machines when one will do? This is particularly important when space is at a premium and the need to maximise the profitability of every square metre is key. Machinery manufacturers such as Sparc Systems have addressed this with integrated checkweighing/metal detection and checkweighing/x-ray systems. They also offer the added capacity of vision inspection and print verification for labels through the SparcEye technology. The design of these machines has been deliberately tailored to enable ease of servicing and repair compared to many others on the market.

### Packing

The process that comes under 'end-of-line' where there is still significant potential for automation is




packing. Automated packing solutions can significantly reduce costs and improve productivity. An example is the Servokart C100S from Buhmann. This machine is designed to offer quality, precision and flexibility in the automatic packing of standard and mixed variety cartons, trays and lids. Pre-glued cardboard blanks can be erected at speeds of up to 20 cases per minute or 144 packs per minute. Recognising a growing demand from retailers, the C100S can take two different product varieties and automatically pack them into a carton to create a mixed case format in different configurations.

Another example is the Servofeed PF200, a compact stacking conveyor which automatically collates and stacks a range of packs. Individual packs can be stacked into pre-programmed formations, requiring a single operator to fulfil an activity that would normally involve two to four people, an excellent illustration of the potential savings available in terms of reduced labour. Quick and easy to install, it can stack at speeds of up to 140ppm, in a compact machine with a small footprint that offers a space-saving solution for any packing area.

#### Advantages beyond labour savings

Food processing companies are constantly looking at ways to improve profitability. At a time

when the spotlight on labour costs has never been more intense, the role that automation can play is clear. Through the consistency afforded by machines, automation is a significant contributor not only to addressing labour shortages but also to achieving the required levels of quality control, production speed and overall profitability. 

Conveyors can automatically collate and stack packs



## Integrated Separation Solutions for the Food & Beverage Industry



Your partner for efficient and sustainable  
membrane filtration, evaporation, drying and ion exchange.



**VISIT US! Anuga FoodTec, Hall 4.1, Booth A-021/B-020**  
**April 26 - April 29, 2022 in Cologne Germany**



# Location, location, location

**Correct placement of an X-ray inspection system can be a critical factor in achieving the best food quality and safety, explains Sibtain Naqvi of Ishida Europe**

**A**s food producers continually strive for higher food safety and quality standards, X-ray technology has become the solution of choice.

X-ray inspection systems can spot unwanted items such as metal, glass, dense plastic, stone and rubber, with some machines identifying foreign bodies as small as 0.3mm.

In addition, its many other inspection capabilities include the detection of broken, undersized or missing items in packs, deformed product and packaging and underfilled trays, checking fill levels and weight estimation. Food quality and safety are particularly vital concerns for the retail sector, and this means the focus is usually on food safety for finished packs.

The natural inclination is therefore to install an X-ray inspection system at the end of the line to check filled and sealed packs. Nevertheless, for some products, quality issues and considerations can be more complex, and this may mean that an X-ray machine will be more effective when placed further upstream.

Understanding the precise requirements of each application is critical to ensuring the correct placement of the X-ray system, assessing the characteristics of the product being packed and what, if any, other inspections are being carried out.

A good example of the benefits of placing the X-ray machine further up the line is the packing of certain high risk raw materials. Nuts, seeds and pulses, dried fruit and fresh produce harvested from the ground have the potential to contain contaminants such as stones, grit and broken or littered items.

If a product is inspected on delivery before any further processing occurs, manufacturers are able to protect their downstream production processes and avoid the costs involved in rejecting or reworking products after other ingredients have been added and the product is packaged.

Equally important, ingredients are often used for a number of different products across several production lines. Using a single machine for bulk inspection before the product is diverted onto different lines avoids costly downtime.





Engineers can fine tuning settings prior to inspection



Bakery products on the way to the prue chamber

Upstream X-ray inspection offers the same benefits for ingredients which are being packed in bulk for supply to the foodservice sector. Products in larger size boxes and bags may be more difficult to inspect and it is therefore better to check these prior to bagging. Inspection for bones in meat after filleting or for foreign bodies in blocks of cheese before cutting for retail packs will identify items that could potentially damage equipment further down the line.

### Bulk inspection

Many types of ready meals can present a challenge for inspecting at the final stage. Usually, the product will involve several ingredients; this can make it difficult to spot foreign bodies such as a bone in a fish fillet or piece of meat. Earlier inspection of the ingredients will enable such contaminants to be more easily identified and will again minimise the implications of rework and loss of product and packaging that would occur at a later inspection stage.

Nevertheless, one disadvantage of any earlier bulk inspection of a product is that during subsequent processing and packing operations, there is still the danger that additional foreign bodies could enter the product. This may require a second inspection point once the pack has been fully sealed. Importantly, this will provide a final inspection to ensure product quality before packs leave the factory and is usually the preferred option for retailers.


For example, for one of our customers – a manufacturer of high-quality gingerbread – we

installed X-ray inspection systems to inspect both the key raw materials before processing and the finished pack. The recipe for the product included a wide variety of ingredients and by including an initial inspection to remove any foreign bodies in these before processing began, overall product safety was increased.

With a wide choice of X-ray and other inspection equipment available, the incorporation of two separate machines on the line can still be an appropriate investment. Different X-ray inspection systems are available for small- to mid-sized retail packs and display boxes, larger boxes and bags, bulk products and unpackaged products.

If the main danger during subsequent processing is from metal components in the factory equipment, a metal detector may be sufficient for the final pack inspection, and this can be incorporated with a checkweigher to ensure average weight legislation is being adhered to.

It also needs to be remembered that the costs associated with poor quality products – such as recalls, retailer fines and the loss of brand reputation – can quickly dwarf any initial investment in inspection equipment.

Just as location is the prime concern for the majority of house buyers, position is a critical consideration in the search for the best X-ray inspection system. Combined with the extensive choice of machines available, this will ensure food manufacturers can meet stringent quality and food safety requirements and protect brand reputation. 



# Enhanced radar technology meets challenges of food and beverage production



Being able to accurately and reliably measure the product level in vessels is essential for food and beverage manufacturers

How do non-contacting radar transmitters comply with the industry's demanding requirements and provide manufacturers with a compact, cost-effective and highly accurate level measurement solution? Felix Johansson, solutions engineer for Emerson's radar level business, explains



The Rosemount 1408H Level Transmitter from Emerson is a non-contacting radar device that has been designed specifically for the food and beverage industry



The Rosemount 1408H Level Transmitter from Emerson is a non-contacting radar device that has been designed specifically to provide highly accurate continuous level measurement in food and beverage applications

For food and beverage manufacturers, the ability to accurately and reliably measure the level of materials in storage tanks and process vessels is essential, as it helps to reduce product loss and maximise production capability by optimising tank utilisation and inventory management. But when deciding on which level measurement technology to select for a specific application, manufacturers need to consider certain vital criteria. Level measurement devices must of course comply with the industry's stringent hygiene and food safety standards. To minimise complexity, they should be very easy to install and integrate into an existing or new automation system, and they also need to be compatible with the process conditions and tank layout for the application in question.

### Technology choices

Depending on the process conditions and tank contents, a number of different technologies can be used to provide either continuous level measurement or point-level detection in food and beverage plants. These include guided wave radar transmitters, differential pressure transmitters, ultrasonic transmitters, load cells, capacitance switches and vibrating fork switches. However, it is non-contacting radar transmitters that best meet the industry's need for measurement accuracy, whilst also providing users with many other advantages.

First and foremost, these devices are top-mounted, which reduces the risk of product loss through leakage, and they are extremely accurate, with measurement unaffected by process conditions such as density, viscosity, conductivity, coating, corrosiveness, vapours, and changing pressure and temperature. Also, the fact that they are not in contact with the material being measured eliminates the possibility of contamination and helps to reduce maintenance and maintain long-term reliability.

Despite these significant advantages, non-contacting radar transmitters have often been considered too large and expensive for use in food and beverage production, while some also lack a full range of hygienic approvals and process connections. Instead, they have typically been applied within the oil, gas and petrochemical industry, where reliability and precise level measurement in safety-critical applications is essential.

However, the latest non-contacting radar transmitter from Emerson has been designed specifically to provide highly accurate continuous level measurement in food and beverage applications. This device matches the industry's strict hygienic requirements and offers manufacturers a compact and cost-effective solution that provides a range of significant benefits.

### Food safety

Reducing the risk of contamination in food and beverage production processes is vital. The new non-contacting radar transmitter has been designed so that its performance is unaffected during tank clean-in-place (CIP) and steam-in-place (SIP) processes. A hygienic antenna is flush with the process connection and its design features a drip-off sealing that ensures the removal of process residue during CIP and SIP, and is insensitive to condensation and build-up. The transmitters also have a broad range of hygienic process connections that fit most common tank connections and sizes.

In addition to their tank cleaning processes, many manufacturers maintain high sanitary standards by washing down the outside of their tanks with foaming chemicals and/or high pressure and high temperature water. The design of the new non-contacting radar transmitter enables it to withstand high pressure and high temperature washdowns, and it has a full range of hygienic approvals, enabling it to meet the food safety standards of any facility. It features >>





Level measurement devices must comply with the industry's stringent hygiene and food safety standards and be very easy to install and integrate into an existing or new automation system



Having the ability to accurately and reliably measure the product level in vessels is essential for food and beverage manufacturers

an IP69-rated sealed polished stainless steel housing that has minimal crevices. This enables water and sediments to drain from its body, which reduces the risk of bacteria growth.

### More accurate measurements

Radar transmitters use reflected signals, also known as echoes, to perform level measurements. The latest non-contacting radar transmitter uses fast sweep technology to provide a continuous echo against the material surface, allowing it to collect up to 40 times more information compared to legacy devices. This makes it the fastest level measurement technology available, delivering an accurate and reliable measurement that enables users to reduce product loss and increase their production capacity.

### Optimised tank usage

A crucial challenge for food and beverage manufacturers is to maximise tank utilisation, so they can keep up with customer demand and increase revenue. The latest non-contacting radar transmitter has been designed to perform accurate level measurements right to the top of the tank, with no dead zone, thereby enabling optimised tank usage whilst also ensuring the vessel is not overfilled.

### Compact design


A reduced footprint was an important consideration in the design of the latest non-contacting radar transmitter. Whereas oil and gas applications are unlikely to place demands on level measurement technology in terms of the space it takes up, the same does not apply in the food and beverage industry. Here, skids typically have very tight piping arrangements, which makes it difficult for large or bulky devices to be installed. The new transmitter is able to meet this challenge because it uses 80 GHz frequency modulated continuous wave technology on a single electronic chip with embedded smart algorithms, rather than having a separate circuit board. This enables the device to be much more compact,

which not only provides an ideal solution for the small tanks often used in food and beverage production, but also has a positive effect on the environment, with fewer electronics being used. In addition, the single chip technology enables exceptional radar beam focusing, which together with smart algorithms enables greater measurement accuracy to be achieved even when tanks contain objects such as agitators.

### Ease of integration

Reducing design complexity is an important aim for food and beverage manufacturers, and instrumentation needs to be easy to integrate with any automation system. To achieve this, the latest device is the first non-contacting radar transmitter with IO-Link connectivity. In addition to the digital high-speed IO-Link communication, the transmitter also provides both conventional 4-20 milliamperes and switch outputs. To further reduce complexity and ensure trouble-free operation, software configuration tools allow the device to be connected and configured online or offline, with easy-to-use graphic interfaces decreasing commissioning time, optimising device replacement processes, and digitally recording parameter settings.

### Conclusion

By combining the high performance and reliability of a non-contacting radar device, typically deployed in the oil and gas industry, with a compact hygienic design and simple connectivity using IO-Link communications, food and beverage manufacturers now have the ideal solution for their demanding level measurement applications. Implementing these transmitters is easy and can result in a range of significant benefits. These include increased food safety and product quality, minimised product loss, and increased production capability through optimised tank utilisation and inventory management. 





food & confectionery process systems

- Cooking Systems
- Cooling Systems
- Mixing Systems
- Vacuum Cook/Cool
- Pressure Cooking
- Bratt Pans

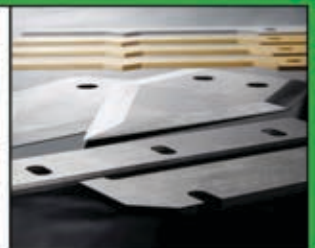


complete turnkey solutions backed by 180 years of experience



SHEFFIELD • ENGLAND

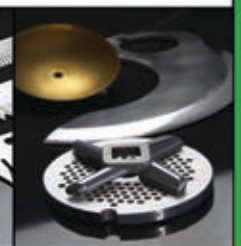
*Razor sharp since 1910*



Durham-Duplex (UK) have manufactured blades in Sheffield for over 100 years and specialise in making machine knives and industrial razor blades for the food processing, dairy & food packaging, plastics, recycling and film & foil converting industry sectors.

Durham-Duplex (Europe) hold stock in Brussels and are the exclusive EU distributor for Accutec Blades Inc, manufacturer of the **PERSONNA** range of skinner, industrial blades and food processing blades.

To learn more visit Durham-Duplex (Europe) at Anuga FoodTec on stand A-008, Hall 6.1.



For all EU enquiries contact Durham-Duplex (Europe) on [blades@durham-duplex.eu](mailto:blades@durham-duplex.eu)

For international enquiries contact Durham-Duplex on [export@durham-duplex.com](mailto:export@durham-duplex.com)

[www.durham-duplex.com](http://www.durham-duplex.com)

# The right balance



X5 Space Saver X-ray unit from Loma Systems

## Investment in x-ray detection drives gains in product integrity

Leading meat processor, the Kepak Group, has recently invested in eight X5 Space Saver X-ray units from Loma Systems.

Employing over 4,500 people across 12 manufacturing facilities throughout Ireland and the UK, the family-owned group processes a broad range of fresh and value added meat products, serving the international foodservice and retail markets with prime cuts of meat, on-trend foodservice solutions and market leading consumer brands. The portfolio includes Rustlers, Big Al's, Feasters, Stript Snacks and Celtic Beef.

Kepak's Kirkham-UK site mainly manufactures a range of microwavable burgers and hot sand-

wiches that come in clear 100 per cent recyclable packs, with additions such as cheese and sauce. The facility produces Rustlers, a top 100 brand in the UK and Europe, which is built around taste, convenience and quality. Food safety standards are a major focus at Kirkham, which consistently achieves the highest grades in food safety and quality audits.

All of the site's eight processing lines had been using an ageing mix of metal detectors and checkweighers, which were not suitable to detect softer contaminants such as bones, as well as ensuring that a sauce sachet and cheese slice were correctly placed in the packs. Kepak wanted



to increase their detection capabilities, but also continue to weigh their products and check product integrity, all within a smaller footprint.

Due to the complexities presented by the final 'on-the-go' burger product, it was decided that each line should have a new X-ray machine, to provide best-in-class metal contaminant detection and an equally impressive capability for detecting softer contaminants such as bone, ceramic and glass. In addition, X-ray would check the product's integrity, plus product weight and volume to a 3g tolerance. The X-ray solution also needed to deliver a line throughput of 100 packs/minute to meet production requirements.


Following extensive consultation, Loma was appointed to supply the Kirkham site with 8 of their market-leading, compact X5 Space Saver X-ray units, providing the very best detection levels - 0.4mm for very small metal contaminants and 0.8mm to 1.6mm to find softer contaminants.

Providing a line length of just 1000mm, the X-ray units were installed into Kepak's production lines, successfully meeting Kepak's exacting quality requirements for contaminant and product integrity checks, while providing first-class CCP protection.

"We had very high expectations of Loma's X-ray machines, which, given the nature of our

Loma Systems X5  
Space Saver X-ray  
units in situ at Kepak



product types, needed some detailed scoping to get the equipment to function perfectly," said Lee Arkinstall, project & improvement manager, food division, Kepak. "Once that had been achieved, we were delighted with the end result. During installation, Loma's technical team were passionate in ensuring that the X-rays were performing at their best, and to that end I can't be happier. I have 100 per cent confidence in Loma's X-ray technology." 

Siegling – total belting solutions

## HYGIENIC AND RELIABLE CONVEYING

- With the right belt types for every processing step
- With HACCP types that sustainably support your hygiene concept
- With reliable service in uncompromising quality



MOVEMENT SYSTEMS

Forbo Siegling GmbH  
[www.forbo-siegling.com](http://www.forbo-siegling.com)



Visit us:  
April 26–29, 2022  
hall 7.1, B-070





# What's next for dairy alternatives?

By working with flavour specialists, manufacturers can satisfy a demand for better tasting plant-based products

Nutrition and curiosity are now coming into consideration for consumers purchasing plant-based products, Lorraine Kelly, category manager, Synergy Flavours, tells *Food & Drink Technology*

**P**lant-based dairy alternatives have taken the food and beverage industry by storm over recent years and are expected to rise to €5 billion market growth by 2025 [Euromonitor]. With rapid growth in this industry, plant-based products are more readily available than ever, and the market is ripe with opportunity to expand product lines and offerings even further.

## Who's buying plant-based?

To ensure manufacturers are delivering the right products, it is important to first identify the consumer groups with purchasing power for plant-based products, and understand the factors driving their decision to opt for plant-based over regular dairy. While vegans and vegetarians make up 3 per cent and 8 per cent respectively of plant-based consumers in the UK <sup>[1]</sup>, a study by FMCG Gurus found that 87 per cent of consumers purchasing dairy alternatives also consumed dairy products. Known as flexitarians, they, along with mainstream consumers, are seeking balance in their diet and are discerning when it comes to product quality.

This is a major area of opportunity for manufacturers, as a significant proportion (>75 per cent) of European consumers say it is important that dairy alternatives taste the same as real dairy products [FMCG Gurus]. This means there is more to be done to create plant-based dairy products that meet the mark.

## Improving sensory appeal

As a large proportion of plant-based consumers also consume dairy products, manufacturers need to be creating products that meet the standard set by dairy, while seeking to provide additional



Cheesecake

benefits to draw consumers in. This gives manufacturers three key areas to focus on in their product development: taste, texture, and nutrition.

### Taste

Creating delicious taste is not a one-size-fits-all approach, and plant proteins (such as oat, soya, and coconut, to name a few) present unique taste challenges compared to dairy. One prevalent issue with these products is disruptive 'off-notes' that can be inherent within the plant-base or develop during processing. These present undesirable flavours in the final product and interfere with other added flavours, which isn't going unnoticed, as 40 per cent of consumers believe that plant-based products could be improved by reducing unpleasant aftertaste [1]. By working with flavour specialists, manufacturers can satisfy this demand for better tasting plant-based products; understanding the flavours emerging from their chosen plant-base, and finding a solution that masks unpleasant notes and restores or emphasises desirable flavours. For example, this could mean reducing the astringent or cardboard notes in a soy based milk alternative, and increasing the milky and sweet notes, to create a product that delivers a fresh, creamy taste.

### Texture

Another area for improvement is texture – 38 per cent of consumers claim that plant-based products would be improved with better texture [1].

As plant-bases typically do not naturally possess the same attributes associated with dairy ingredients, manufacturers must ensure that textures like 'body' and creaminess are restored when creating plant-based dairy alternatives. For example, with plant-based cheese, it is essential that the product tastes authentic, as well as ensuring it performs like a cheese – offering creamy or crumbly textures, and similar melting patterns.

### Nutrition

Value added ingredients are another way to differentiate plant-based dairy alternatives, especially when it comes to those with improved functional or nutritional characteristics. Consumers' strong demand for more protein from their foods and beverages is a driving force of innovation. Almond and coconut milks fortified with pea protein are some examples of this trend, as companies continue to explore new varieties of proteins that can appeal to consumers. A health halo, which is the belief that certain ingredients inherently possess healthy qualities, is especially important here, with ancient grains, legumes, and seeds becoming key sources of new plant proteins.

### Trends to watch in 2022

Factors such as nutrition and curiosity are now

coming into consideration for consumers purchasing plant-based products. Therefore, it is important to understand what these new motivators are.

### Sustainable nutrition

Consumers will look for dairy alternatives that are genetic modification (GM) free, allergen-free, and carry a low carbon footprint. Using plant proteins, such as oats, which deliver a good sustainability profile, allows consumers to benefit from both the nutritional content of oat-based products, and the added assurance that these products have a positive impact on the environment. For dairy consumers that may be reluctant to give up dairy completely, hybrid products that include a combination of both dairy and non-dairy milks may appeal. This allows consumers to add plant-based ingredients into their diets without sacrificing the flavour, texture and nutrients delivered by dairy milk.

### Ingredients and flavour innovation reinvigorate the category

Unique ingredients and exploration of global flavour profiles could be an avenue to attract a new consumer base and develop exciting products.

The desire for fun, creative flavours offers the opportunity for product differentiation. Flavours to explore could be cannoli, alfajores (Latin/South American butter sandwich cookies with dulce de leche) or aamrakhand (from India – a mango and yogurt concoction with hints of cardamom, saffron and pistachios).

### Grow appeal by calling out health and nutrition benefits

Dairy alternatives need differentiation in terms of health benefits. Properties such as protein, vitamins/minerals, and bone health can be used as building blocks to introduce consumers to claims and benefits such as immunity, gut, and eye health. Because of this, brands are highlighting their nutritional value, such as rich dietary fibre in oat milk, vitamin E in almond milk, and palmitoleic acid in macadamia nut milk.

### Capturing the growing opportunity

For plant-based products to appeal, they must meet the standard set by classic dairy products. Taste and texture are the key opportunities for improvement, so that manufacturers can create products that appeal to consumers who expect dairy to taste a certain way. If manufacturers want to win over consumers, they must ensure that their plant-based products are not a compromise on dairy – they must meet the benchmark, and exceed consumer expectations for flavour delivery, mouthfeel, and indulgence. Flavour solutions can be used to help manufacturers create a decadent and delicious product that is as close to real dairy as possible. [2]

For more information on creating dairy alternative products that excel in a booming market, visit <https://uk.synergytaste.com/plant-based-solutions>

**References:** 1. Synergy Non-Dairy Consumer Research, June 2020

# Influences behind plant-based alternatives



Infuse by Cargill has custom blended solutions for dairy formulations

As dairy alternatives become more mainstream, creating a product with plant-based ingredients requires choosing the right mix of ingredients that emulate the features in animal-based products, writes Mercedes Brighenti, senior application specialist dairy & frozen desserts EMEA

**M**ore consumers are embracing flexitarian diets, making plant-based dairy alternatives one of the hottest segments in the food and beverage landscape. No longer limited to a niche consumer base, large swaths of the dairy aisle are now home to these trendy products. This broader consumer base has sparked steady volume growth for the category (11 per cent CAGR, 2015-2020), despite the ups and downs of the Covid pandemic. This upward trend is expected to continue in the years ahead, with Euromonitor projecting a seven per cent CAGR (2020-2025).

It is also a hotbed of innovation, moving well beyond the original soy-based milk alternatives. Plant-based drinks still make up the largest subcategory of new product launches by volume, but the non-dairy ice cream and frozen yogurt space is the fastest growing, delivering a 33 per cent CAGR (2015-2020). Other popular segments for new product launches include spoonable yogurt and cheese alternatives, which both delivered double-digit growth over the last five

years. Health perceptions are certainly key drivers behind the category's meteoric rise, but other factors such as taste, costs and sustainability are growing in importance. Cargill's proprietary FATitudes research found that 55 per cent of global consumers indicate they're more likely to purchase a packaged food item if it includes a sustainability claim, a four-point jump since Cargill last fielded this research in 2019.

For brands to succeed in an increasingly crowded marketplace, they'll need to weigh these considerations, too.

## Key product attributes

As dairy alternatives become more mainstream, there's a higher expectation around taste, texture and appearance. Creating a product with plant-based ingredients offering the sensory qualities that consumers desire is not an easy feat. In order to formulate dairy alternatives, formulators need to have an understanding of the functionality brought by animal-derived ingredients and how alternative ingredients can replicate that. Choosing the right mix of ingredients that can be synergistic and emulate the features in animal-based products is critical.

Milk smoothie





## Oils

Cargill's refined vegetable oils portfolio offers a wide array of solutions. This ranges from (blends of) liquid oils such as sunflower, rapeseed, soybean, and linseed oil. To achieve this, we can adjust the physical characteristics of an oil or oil blend to create specific melting profiles and/or crystallisation properties using oil refining technologies such as fractionation, full hydrogenation and interesterification.

By selecting the right oil solution from our portfolio we can provide similar stability, mouthfeel and physical behaviour like milk fat for dairy alternative applications or even go above and beyond the standard functionalities of milk fat and bring new sensations or improved functionalities. Our oil solutions have different nutritional and botanical compositions, melting profiles, sensory attributes, interaction with other ingredients, market economics and sustainability considerations. We take all these criteria into consideration as we work on developing the best dairy alternatives with and for our customers.

## Label-friendly starches

In dairy alternative applications like yogurt or pudding, starches are critical to controlling syneresis over a product's shelf life, and they also help to bring back some of the texture when milk proteins are removed. Because plant-based proteins function differently than dairy proteins, syneresis is a much greater concern. Starches help absorb the excess water that seeps out over shelf life, while also contributing to the creamy mouthfeel consumers expect. Starches can even impact colour, helping formulators achieve the white hue long associated with traditional yogurt. They also have a place in dairy alternative beverages, providing a creamy and indulgent mouthfeel. For brands seeking label-friendly ingredients, we recommend our line of functional label-friendly starches. Cargill's SimPure label-friendly functional starches help create indulgent textures in dairy and dairy alternatives.

## Sweeteners


In dairy alternatives, sugar content can be a concern. Many consumers are attracted to plant-based alternatives because they perceive them as healthier options to their full-dairy counterparts. Formulators have a challenge to find a way to combat off-flavours without raising the sugar content. On top, consumers expect familiar ingredients, triggering manufacturers to formulate out artificial sweeteners and opt for nature-derived, no calorie sweeteners such as stevia. Especially in plant-based dairy drinks, stevia is proving to be a popular choice for manufacturers that are looking

for a zero-calorie, nature-derived sweetener with good consumer perception. Our ViaTech portfolio of high-performance stevia-based sweeteners brings optimal sweetness to even the most challenging reduced and zero-calorie formulations. The stevia leaf is complex in that it has over 50 steviol glycosides (steviol glycosides are the sweet parts of the leaf) and they each taste slightly different. At Cargill, we tasted each and every steviol glycoside alone and in combination with each one another and created a statistical model that we then used to create products that use combinations of steviol glycosides. The result is a line of precision sweetness that offers just the right taste for our customer's specific formula.

## Protein

Pea protein can serve as the foundation for dairy alternatives, including plant-based alternatives to yogurts, puddings and frozen desserts. With functional attributes similar to soy, it's a good choice for brands aiming to keep major allergens off product labels. Plus, some pea protein options have the added attraction of a more neutral flavour profile than soy. Pea proteins are produced from label-friendly yellow peas, which need no allergen declaration in Europe. When combined with SimPure and other ingredients in our texture portfolio, a range of desired textures can be achieved, including liquid, indulgent creamy and soft gelled.

## New opportunities

Cargill launched Infuse by Cargill, which brings together the company's extensive ingredient acumen to create tailor-made ingredient blends. Infuse by Cargill has developed a wide range of custom blended solutions to help with stabilisation, sugar-reduced and plant-based formulations in dairy, leveraging Cargill's broad range of ingredients. Coming up next is a range of hybrid dairy (dairy concepts that are a mix of animal-based and plant-based proteins) concept solutions that can help consumers take the first steps towards more plant-based eating. Infuse has managed to tackle the specific challenges related to replacing part of the milk with plant proteins. Specific solutions include protein blends consisting of fava beans and pea proteins for optimal taste, texture and nutritional profile, fibre blends consisting of soluble corn and chicory root fibres for increased fibre content and compensation of the lost dry matter and texturiser blends to help with stabilisation, texture buildup and indulgent mouthfeel. 



Hybrid dairy concepts can help consumers towards more plant-based eating

Mercedes Brighenti, senior application specialist dairy & frozen desserts EMEA



# Appetite for change

ADM chef cooking in Erlanger kitchen



Mixing ingredients in a blender in Decatur lab



**Consumer attitudes toward dairy alternatives are changing, as trendy dairy-free foods and drinks gain shelf space. But what key attributes and opportunities can food and drink manufacturers exploit to maintain interest in the growing category? Robin Redelin, senior manager, category marketing for dairy & dairy alternative, EMEA, explores the options**

Consumer demand for dairy alternatives is continuing to rise and shows no sign of slowing down, with purchasing decisions driven by both the concerns about how to sustainably feed a growing population and consumer demand for health-forward solutions. At ADM, our research has found that consumers are becoming more conscious of the need to lead a healthy lifestyle, sparked by the impacts of the pandemic<sup>1</sup>, which is contributing to the growth of the dairy alternative market.

This rise in demand for dairy alternatives has greatly impacted the sector, leading to a vast increase in innovation and alternative products. But as we move through 2022, what are the key attributes, challenges and opportunities that will continue to drive consumer appetite?

## Flavours and textures

Consumers now have a range of alternatives to choose from; from foods based on soy, oat and almond to pea and chickpea blends. We are also seeing flavours and colours being extracted from natural sources, such as botanicals, fruits and vegetables, to elevate plant-based offerings with consumer-preferred attributes.

In response to this trend, we at ADM are continually looking to innovate and move towards more sustainable ingredients in foods, beverages, and dietary supplements. We lean into our consumer insights, scientific research and technological capabilities to create new and existing flavours and taste experiences that appeal to more consumers' ecocentrism and dietary demands.

To achieve this, we are leveraging our vast portfolio of flavours and colours to help producers of dairy alternative products offer a diverse and pleasing sensory experiences for consumers. When it comes to plant-based beverages, yogurts and frozen novelties, our flavours and mouthfeel enhancers help modify and mask undesirable notes and build richness characteristics, helping to more closely replicate traditional dairy.

While the desire for more plant-forward options is on the rise, we know consumers will not sacrifice on taste and texture. Advanced technologies and new raw materials are working to solve this issue, creating alternatives that more closely mimic traditional dairy. Fermented oat is an example of this, which continues to trend among consumers. Food scientists are also developing dairy-like characteristics for more

categories like yogurt, desserts and vegan sports protein powders finding the sweet spot between their original plant notes and further elevated by indulgent flavours.

## Protein

More consumers are now seeking protein in dairy alternative products. In fact, 57 per cent of plant-based consumers would like to see more high-protein plant-based dairy alternatives<sup>2</sup>. However, protein focused dairy products often present earthy, beany or grassy off-notes, which is why we have developed a range of clean tasting plant-based protein solutions.

For example, our soy and pea proteins, such as our ProFarm Pea 580, have a superior clean taste that reduces the need for flavour modifiers, and they're high-quality proteins with PDCAAS (protein digestibility-corrected amino acid scores) of 0.8 or higher. Similarly, our PurelyNature soy protein concentrates deliver cost-effective solutions to fulfil consumers' desires for alternative protein foods with great taste and texture.

## Nutritional health

In the UK, the nutritional and health benefits of dairy alternatives are some of the key reasons why consumers are attracted to the product over traditional options<sup>3</sup>. This includes gut-health, digestion, immunity, and overall benefits to their well-being.

To meet evolving consumer demand focused on health and well-being, ADM offers a range of health and wellness solutions, including prebiotics, probiotics and postbiotics and extracts with bioactive compounds.

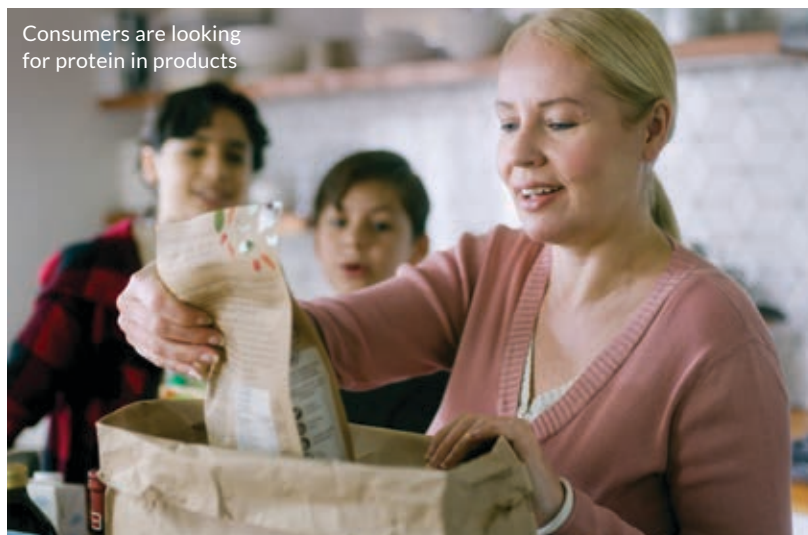
Through our proprietary science and market insights, we have developed an expansive portfolio of targeted health and wellness solutions. From our BPL1 probiotic and span of botanical extracts to our soy isoflavones and dietary fibre, the range is extensive.

For example, Fibersol, a prebiotic dietary fibre from ADM/Matsutani LLC, can be used in dairy alternative products and is clinically shown to support gut health. Fibersol promotes the growth of beneficial microbes which enable a healthy digestive system. Unlike many other prebiotic fibre solutions, it is well-tolerated by consumers because it ferments more slowly in the large intestine, minimising gastric discomfort. It can be easily incorporated into a variety of food and beverage applications without affecting flavour.

## Ingredients and clean labels

We know there is a need for innovative alternatives to ensure plant-based dairy products meet

Consumers are looking for protein in products



or exceed the experience of traditional products. However, too many or unfamiliar ingredients often deter shoppers from choosing new products. Consumers want short, clear, and clean labels – something that can be challenging for alternatives to dairy, as typically the products require an extensive list of ingredients to build back functionality, texture, taste and more. That's why we've recently launched a range of texture solutions that consist of plant-based blends. These blends provide robust texture and flavour, as well as add body and thickness to improve the product to a formulation that consumers desire.

## In Summary

As more consumers seek plant-based options outside of the traditionally niche vegetarian market, flexitarianism has now become mainstream. Therefore, brands must stay ahead of the latest trends and technologies to ensure they're innovating for the future. At ADM, we are continuing to leverage our technical expertise and plant-protein formulation abilities to support producers to develop world-class finished products to meet consumer demands. 



Consumers want short, clear, and clean labels

### References:

1. FMCG Gurus, How Has Covid-19 Changed Consumer Behavior, March 2021
2. Lightspeed/Mintel, March 2021
3. ADM Alternative Benefit Report 2021  
BPL1 is a trademark registered for Biopolis in the EU, the US, South Korea and other countries



# Connecting the value chain through packaging innovation



Consumers expect transparency and want full visibility of the value chain

Traceability is essential to communicate brand commitments to net zero carbon emissions, Berit Hoffmann, marketing director North Europe, Tetra Pak, tells *Food & Drink Technology*



As the old adage goes, the only constant is change – and this includes the way we package food and beverage products. But it's not only how we package products that is changing. How and what we communicate on food and beverage packaging has transformed remarkably over the past decade as well.

Fast forward to the present day, driven by UK consumer concern for climate change trumping Covid-19 in terms of priorities, there has been a change in communications tact. This shift has forced businesses to be more transparent and label packaging's sustainability impact and credentials. Brands today are now striving to achieve the perfect balance of food content, branding and more sustainable packaging.

To reach this, we will explore current consumer expectations of food and beverage brands, how brands are connecting customers to the value chain, and why traceability is essential to communicate brand commitments to net zero carbon emissions.

## Demand for transparency

In recent years consumers have increasingly focused on what they are purchasing and its impact on themselves and the world around them. Food safety, for example, remains a top priority – according to the Tetra Pak Index 2021 – driven

largely by the spotlight the pandemic has shone on health and securing supply chains.

A product's provenance is no longer just used as a story-teller for brands, it's now a major decision-driver for consumers: 35 per cent of consumers are choosing products based on local provenance and traceability more than they did before the pandemic, equal to the amount now basing decisions on sustainability credentials.

Packaging brands are at the vanguard of implementing changes to address these transparency demands, with consumers expecting them to be the leaders in finding solutions to environmental issues, and to innovate and use recycled content and renewable materials. This demands greater transparency and access to information to help them make an informed, responsible choice as part of their shopping process.

### Demonstrate transparency through traceability

But, consumers now expect transparency from brands as a given. On top of this, they understandably want to have full visibility of the entire value chain, and packaging innovation is helping to facilitate this.

Fortunately, next generation technology and innovation is enabling full traceability from a production and manufacture point of view. For example, manufacturing execution systems like Tetra Pak's PlantMaster have been designed to specifically digitalise and automate food and beverage production operations. By simplifying complex processes and reducing manual work, automation can provide full transparency and traceability within factories and the entire supply chain – from raw materials to packaged and palletised products, through to consumption. Implementation of this technology also enables more efficiency by minimising waste throughout the process.

From the consumer's perspective, digitalisation of food and beverage packaging is both education and entertainment. QR scanner codes are now a key mode of communication between brands, packaging suppliers and consumers. By scanning with a smartphone, consumers can be transported to a webpage highlighting a package's renewability and recyclability credentials, whilst being taken on a journey across the value chain. By the same token, they can also enter into "scan and win" competitions. Tetra Pak for example, is spearheading 'connected packaging' by offering codes to not only educate customers, but to engage them with the brand too.

This dual aspect has opened up a variety of engagement opportunities for packaging businesses – and will play an increasingly important role as

the technology further improves and new consumer demands are established and consolidated.


### What's next for packaging?

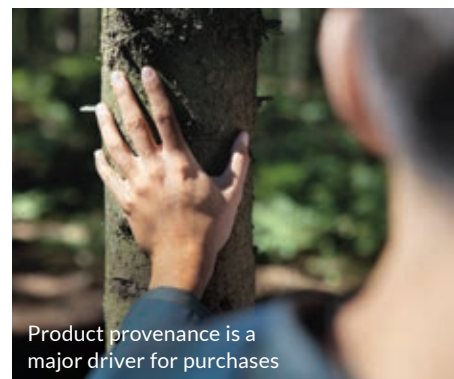
Consumer trends are in a constant state of flux. However, key areas such as food safety, sustainability and transparency, remain consistent. We are currently witnessing this with the demand for full traceability.

There remains a visibility issue amongst stakeholders, with many failing to trust that some companies are adopting more plant-based materials. As consumers become increasingly savvy, they require external validation to prove that brands are engaging with sustainably sourced raw materials. Partnership with external certification programmes can help to support companies sustainability claims, enable better measurement, transparency and deliver targets. For example, Tetra Pak is aligned with Forest Stewardship Council and Bonsucro Chain of Custody to ensure the paper-board and sugar cane its uses in its plant-based packaging materials is responsibly sourced.<sup>1</sup>

What does change is the depth of the trend. For example, calls for traceable products are now extending beyond establishing where raw materials are sourced, but also how. This includes greater focus on labour conditions across the entirety of the supply chain.

### Final thoughts

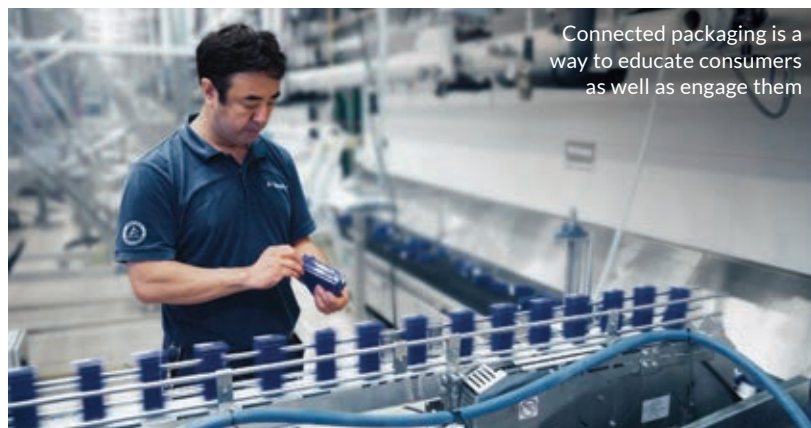
The pandemic undoubtedly accelerated certain consumer trends that were on brands' radar. However it has also presented an opportunity to bolster the quality of packaging in terms of what it delivers for food safety and transparency. Packaging innovation has played a key role in helping this transition, and will continue to be integral as the world emerges from the pandemic, and beyond. 



Product provenance is a major driver for purchases

#### References:

1. The FSC license code for Tetra Pak is FSC C014047



Connected packaging is a way to educate consumers as well as engage them





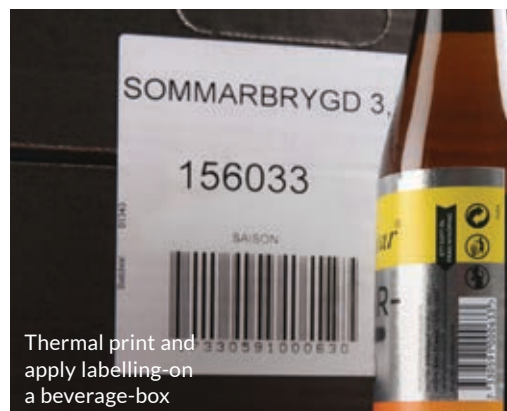
Josie Harries,  
group programme  
director, Domino  
Printing Sciences

# Ink development for food-contact materials

How navigating consumer demands in a changing regulatory landscape can pay dividends



Thermal print and  
apply labelling on  
bakery goods



Thermal print and  
apply labelling on  
a beverage box

Substances and chemicals used in the design and manufacture of food and beverage packaging have attracted significant global attention in the last few years – with consumers calling for increased transparency on the substances used on food contact materials.

These substances include the inks used in the coding and marking and labelling of products and packaging. To protect consumer health and safety, food packaging inks are highly regulated and subject to an ever-changing regulatory landscape which can cause significant challenges for manufacturers.

In this article, Josie Harries, group programme director, Domino Printing Sciences (Domino) sheds some light on the challenges faced by manufacturers when sourcing inks for food packaging applications and provides insight into what brands can do to ensure that the inks used in their coding and marking applications remain compliant with current and future regulations.

## Why are inks important for food packaging?

Product labelling, and coding and marking, are a crucial part of global food and beverage markets – allowing food and beverage manufacturers to communicate key information to consumers, as well as to logistics workers, retailers, and anyone involved in global food supply chains.

For consumers, this may include expiration dates, ingredients, allergens, and nutritional values, as well as information on how certain ingredients have been sourced – eg, whether a product

contains sustainable palm oil or fair-trade cocoa.

From a wider supply chain perspective, batch, product, and traceability codes facilitate a product's journey from manufacturer onto the supermarket shelf and are crucial in assisting with recalls on occasions when something goes wrong during production – eg, in the event of undeclared allergens.

With the above in mind, it's vital to ensure that any codes included on food packaging will withstand the journey that a food product makes, and last throughout a product's shelf life. The type of ink used will vary from substrate to substrate – for example, a durable, high-contrast ink suitable for cardboard boxes will have different characteristics and composition from one that is suitable for printing on the film lids of yoghurt pots, where the risk of smudging requires an ink with quick-drying properties.

But performance is not the only factor to bear in mind when developing inks for food packaging. As well as being robust, reliable, and fit for purpose, any formulation must also be safe to use with food products, requiring assurances that inks will not compromise the integrity of, or migrate through, product packaging, or pose a threat to consumer health if the ink comes into direct contact with food.

## Spotlight on consumer safety

Consumer health and safety is a top priority when developing inks for food contact packaging. Food and beverage manufacturers have a moral and legal obligation to ensure that any ink used on



food packaging is safe for its intended use – and we are also witnessing a growth in consumer interest in, and knowledge of, the chemicals included within food packaging.

For example, the use of per- and polyfluoro-alkyl substances (PFAs), so-called ‘forever chemicals’, which are typically used to coat food packaging and make it grease- and water-resistant have come under significant criticism recently, with many US states restricting their use. Growing consumer awareness is leading to increasing demand for transparency in how products and packaging are manufactured.

Food producers are, ultimately, legally responsible for any ink used on their product packaging – so working with proven and reputable ink suppliers, who are aligned with key industry associations and able to advise and assist manufacturers with ensuring compliance is key to providing this transparency and assuring that inks are safe for use on food packaging. Regulations and guidance will vary depending on the countries in which products are sold.

The European Printing Ink Association (EuPIA), which counts Domino as an active member, has devised Good Manufacturing Practices (GMP) guidelines to help ink producers meet their obligations relating to articles that come into contact with food – including European Regulation (EC) No.1935/2004 and Regulation (EC) No. 2023/2006, and ISO9000 and ISO22000 standards. In the United States, similar advice is provided in guidelines relating to Current Good Manufacturing Practices (CGMPs), which are regulated by the US Food and Drug Administration.

## Sustainability trends

Sustainability is another key area in the food packaging industry – and staying abreast of market trends in this space is essential, not just for food and beverage manufacturers, but also for ink manufacturers. Many major food and beverage manufacturers are currently exploring alternative substrates and materials, including recycled cardboard and plastic, compostable materials, and refillable packaging. Each one has its own properties, and inks must be designed with these in mind.

For example, with recycled cardboard and plastic packaging, it is important to consider ink properties that will not harm the recyclability of a substrate or contaminate the recycling stream. With the Plastic Packaging Tax being introduced to the UK in April 2022, which encourages the use of at least 30 per cent recycled plastic in packaging, bearing these factors in mind will become increasingly important.

Taking end-of-life plans into account is also crucial. With compostable materials, manufacturers

must ensure that the inks used on their packaging are in line with relevant regulations and will not compromise the usability of the composted material. For reusable packaging, ink coding solutions need to ensure inks stay on a product throughout its use but can be removed once the packaging is returned.

## A changing regulatory landscape

Aside from EU and FDA GMP compliance, the Swiss Ordinance List is another key regulatory framework relating to the suitability of inks for food contact materials. In the absence of global regulation, the Swiss Ordinance List is used by many large food and beverage manufacturers, including Nestlé, to ensure that their products and packaging remain compliant in all areas in which they are bought and sold.

Meeting regulatory requirements for printing on food packaging is a complicated business. Especially when you consider that the landscape for inks can change rapidly. The Swiss Ordinance List is regularly updated, and chemicals previously considered to be safe for printing on food packaging may be reclassified, which can potentially leave manufacturers without a globally compliant solution. Often, it's not as simple as swapping one component for another as even a small change can have a significant impact on the ink performance, such as code legibility and durability, and printer efficiency, which can impact product quality and production reliability.

It can take as long as 12 to 18 months to develop new inks and formulations, so it is important that any ink is developed not just with current regulations in mind but looking forward to any potential reclassifications that may place. As such, it is important for food producers to work with proven, best-of-breed ink manufacturers, who have longstanding relationships with industry bodies, as well as with global food and beverage companies, and who are at the forefront of ink and packaging development.

## Conclusion

Product labelling, and coding and marking, are a small but vital part of global food and beverage supply chains. Equally, the sensitive nature of food and beverage packaging means that inks used on food product packaging are highly regulated – and it's up to brands to ensure that the inks used on their packaging are compliant. 

ES-PPC labels on a bottle

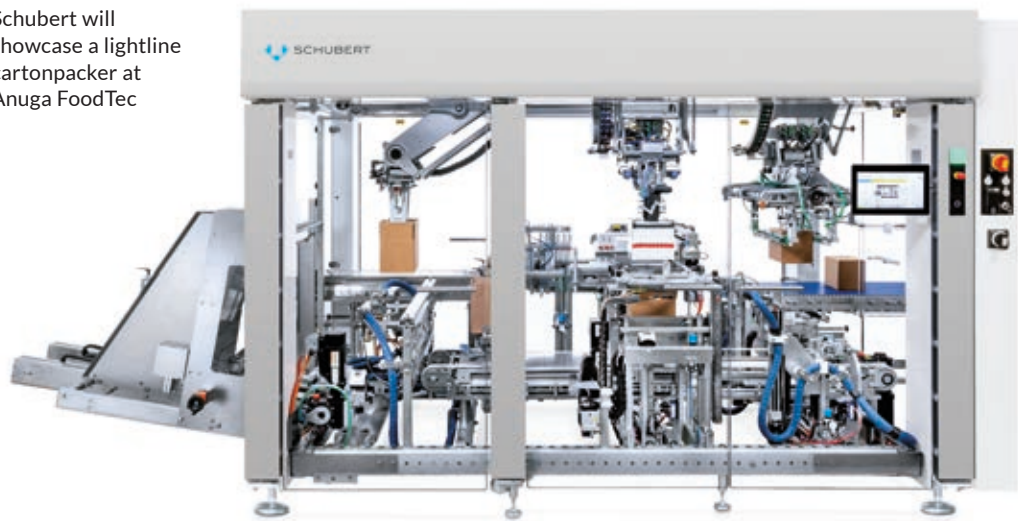




# In full *swing*

Anuga FoodTec, the trade fair covering process technology, filling and packaging technology, packaging materials, ingredients and food safety, taking place from 26 to 29 April 2022 in Cologne, Germany, will open its gates, with a theme of digitalisation, and “efficient solutions for the food industry”, as well as putting the focus on alternative protein sources

Schubert will showcase a lightline cartonpacker at Anuga FoodTec



**F**ood and drink professionals from around the world will discover innovations for their product ranges in all product categories, including a growing number from plant-based food – a success factor in the trade. According to industry experts, the importance of alternative proteins in the market is growing very dynamically and the trade show also reflects this trend. Anuga FoodTec will focus on the processing of alternative proteins and the necessary know-how along the entire process chain.

## The innovation drivers

Anuga FoodTec will show how this potential can be tapped for the food industry. In addition to soy, raw materials based on legumes are becoming increasingly important. Katleen Haefele, international head of food services & events at ProVeg, believes that regional ingredients are currently particularly popular. “Resource-efficient and local protein sources, such as pea, field bean or lupine, are particularly in demand,” says Haefele. Algae is also a popular raw material at the moment.

But it is not enough to partially or completely replace animal protein with alternative proteins. The products must also be convincing in terms of

appearance, mouthfeel and juiciness. This calls for know-how at all levels of production. The focus of the ingredients specialists is primarily on improving the texture, aroma and taste of the new foods. At the same time, mechanical engineers are optimising the established plant technology and working on new, innovative processes to open up a wider range of vegan and vegetarian products for manufacturers.

## Technology for the entire veggie process chain

Extrusion will play a central role at Anuga FoodTec. Its versatile applicability enables the production of textured proteins from vegetable raw materials, the structures of which create flavour and texture profiles similar to those known from chicken, pork or beef. The latest trends in this field will be presented by Coperion, among others, in the event zone “Advances in food extrusion” on the Main Stage Topics, Trends, Technologies, Hall 6, A 100/ C129 on 28 April. The technology provider from Stuttgart offers a twin-screw extruder in hybrid design for the production of such meat substitute products. Thanks to a flexible adapter solution, the discharge can be converted from a die with centric

granulation to a cooling die in a very short time – so textured vegetable protein, meat analogues with a high water content and numerous snacks and cereals can be produced on one and the same line. The textured vegetable protein can be further processed on modern equipment that is also used in traditional meat processing.

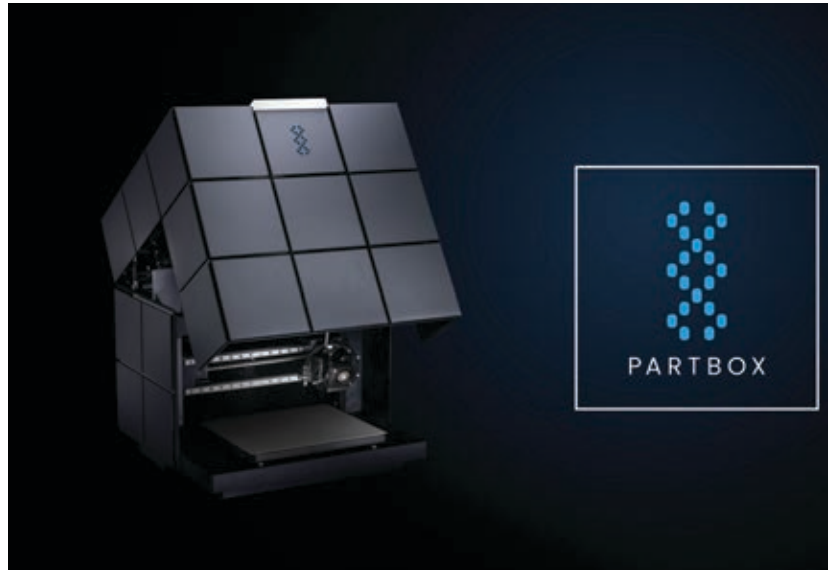
From comminution and portioning to packaging: Anuga FoodTec offers solutions for almost every process engineering task. The exhibitors in this segment include market-leading companies such as Maschinenfabrik Seydelmann and Vemag Maschinenbau. At the heart of their modular and (partially) automated complete solutions are not only cutters, mincers, mixers and vacuum fillers, but also moulding systems. Especially in the case of meat substitutes based on vegetables or tofu, which can be prepared quickly or eaten as a snack, much more variety is required in the shaping of vegan and vegetarian convenience products than was the case a few years ago. Albert Handtmann Maschinenfabrik with the FS 525 forming and cutting system, which combines two forming principles. With the perforated plate forming technology, freely formed 3D products such as balls and meatballs can be produced. The rotary cutter, on the other hand, can be used to produce different cross-sections with a smooth cut, for example for vegetable patties or nuggets.

The international supplier fair for the food and beverage industry not only covers the wide range of solutions for the production of plant-based meat alternatives, but also takes a look at a future in which insects and cultured meat are to ensure greater sustainability.

Anuga FoodTec is recording an excellent number of registrations for this year's trade fair concept - designed as a "special edition" - by linking up the compact physical trade fair with the high-reach digital platform AnugaFoodTec @home. Anuga FoodTec has already convinced numerous market leaders, medium-sized and smaller companies for the 2022 event with this concept.

Anuga FoodTec is not just a trading platform but also the gathering place for the entire international food and beverage sector. It is a hub that provides both a comprehensive overview and a general road map and is the starting point from where the future of the sector is shaped.

Food producers, who are striving to guarantee their security of supply under compliance of the legal provisions, will find innovations at Anuga FoodTec, which will help them realign their energy efficiency. The following applies here: Already in the design phase of machines and systems, energy considerations are being taken more and more into account - and all of the innovations are also always combined with the digitalisation aspects.



### Cutting-edge technologies

Digitalisation is opening up new opportunities for companies in the food and beverage industry to network their processes. At Anuga FoodTec in Cologne, exhibitors will be showcasing how the digital transformation can be successfully implemented – and Schubert is no exception. The packaging machine manufacturer will present a lightline cartonpacker which packs grated cheese pouches into cartons on site. Every three years, companies from the global food and beverage sector gather at the Anuga FoodTec in Cologne. From 26 to 29 April 2022, it will be that time again. In Hall 7.1 at Stand C071, packaging machine manufacturer Schubert will showcase its solutions to support the digital transformation. On site, a lightline cartonpacker will pack grated cheese pouches into cartons, whereby the cartons are erected and filled with the pouches. Thanks to the two carton blank magazines, the pouches can be packed into two different types of cartons. A GS.Gate industrial gateway enables secure access to the machine and production data. "What this means is that we can carry out remote maintenance and use the data obtained to increase the machine's performance," explains Georg Koutsogiannis, senior sales account manager at Schubert.

### Digital data – the foundation for new services

"The more digital packaging machines become, the more data is generated during their operation," Koutsogiannis adds. "With targeted digital services, this wealth of data is turned into hard cash for manufacturers and operators." At the trade fair, the Schubert team will present its new digital CARE services, which can be used to optimise packaging processes whilst saving resource and costs. >>

Schubert Additive Solutions will present its latest development at the trade fair: a 3D printer developed in-house for the high-quality printing of format and spare parts

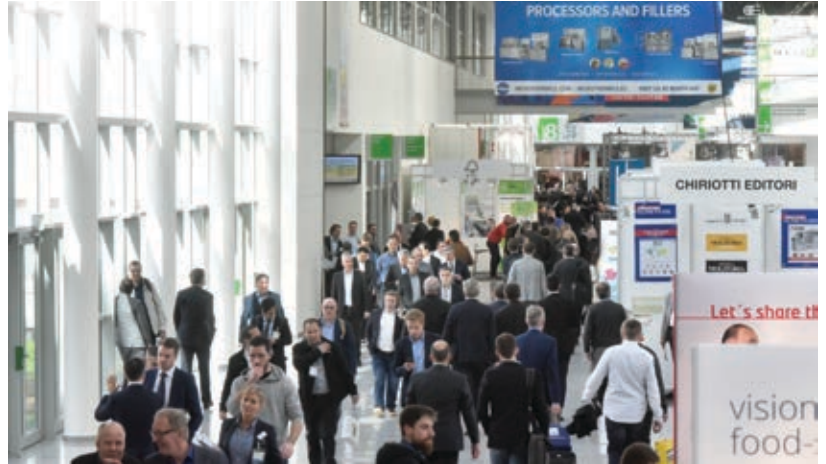




Food producers will find innovations at Anuga FoodTec to guarantee their supplies



Anuga Foodtec 2022 is the perfect place to present relevant product developments to a broad range of industry professionals



### Schubert supports the switch to environmentally friendly packaging

Schubert will also provide information on the high-profile topic of sustainability. Visitors will discover how, with support from the experts at Schubert-Consulting, the switch to environmentally friendly packaging solutions can successfully reconcile sustainability and cost-effectiveness. The team will also be on site to answer questions about in-house packaging development.

### Solutions for product-protecting and hygienic filling

Whether filling, labelling or packaging, beverage producers and manufacturers of liquid food products will find tailored solutions for every process step and every kind of container.

The latest technical updates make it possible for machinery in the beverage industry to adapt to as many different containers as possible and fill the most varied products – from carbonated refreshment drinks to water. Step-by-step, the system manufacturers are networking production processes with the help of digital and smart technologies, so that machines can communicate and coordinate with one another more efficiently. With regard to product safety, the solutions presented at Anuga FoodTec 2022 embody the state of the art of aseptic technology. Where required, they are also proficient in wet or dry sterilisation and work in the high or low performance range.

Food manufacturing, packaging and distribution is all about hygienic, careful, and reliable processes. Forbo Movement Systems' specialised conveyor and processing belts comply fully with these criteria. They treat products gently, however complex the process, are easy to clean and reliable in terms of long service lives, superior production results and efficiency. And they support HACCP concepts too of course.

As the world's premier trade show for food and beverages, Anuga Foodtec 2022 is the perfect

place to present relevant product developments to a broad range of industry professionals.

### Movement Systems is showcasing the following highlights:

- Fullsan belts**  
 Siegling Fullsan is the new product line of homogeneous, thermoplastic, polyurethane belts from Forbo Movement Systems. All Siegling Fullsan belts are protected from contamination by oil, grease, moisture, and bacteria. Siegling Fullsan belts are very easy to clean and ideal for exceptionally hygiene-critical applications (dairy products, dough preparation, meat and poultry processing and other food-related areas).
- Frayfree and Smartseal belt edge protection**  
 Due to the special design of Frayfree belts, the edges hardly fray at all. On the one hand, Smartseal belt edge sealing prevents oil, grease, and water from penetrating and therefore bacteria from forming and on the other, reliably stops the belt edges from fraying. Both types of sealing meet the stringent hygiene demands in the food industry perfectly. 

### Premiere: New 3D printer to be presented to the public for the first time

Schubert Additive Solutions will also present a new development in Cologne. Using the Schubert subsidiary's virtual web platform, manufacturers can produce plastic parts in their own production facilities using 3D printing. Schubert Additive Solutions has developed a high-quality 3D printer for this purpose, which is connected to the platform via LTE and which ensures outstanding printing results. "The PARTBOX enables users to produce the parts they need directly on site," explains Marcus Schindler, division manager of supply chain management at Gerhard Schubert and managing director of Schubert Additive Solutions.

# Group quality



Muriel Vanoli is head of quality & compliance at St Pierre Groupe. She has worked in the food and drink industry for two decades and is now responsible for product quality, authenticity, legality, and safety across all St Pierre Groupe brands – which include St Pierre, Baker Street and Paul Hollywood. Her role also means she leads on the development and implementation of the food safety culture at the company. In 2020, French-native, Vanoli, was shortlisted as Food & Drink Technologist of the Year by the Food & Drink Federation. *F&DT* sat down with her to learn more about her career to date

## What led you to the food/beverage industry and your role of head of quality and compliance specifically?

Honestly, it was accidental, really. I was more interested in agricultural & environmental studies when I was younger. At 16 I did a three-week placement on a dairy farm that changed my mind. I realised that I'm not cut out for strenuous and relentless physical farming work. The early mornings, lack of weekends, holidays and spontaneity did not appeal. I felt that seeing the world was a better option, so I decided to study abroad, which is how I ended up in Manchester.

I've worked in a few different sectors, in the UK, Cape Town, a return to France (twice) and am now back in Manchester. My roles have spanned technical management, food technologists and even marketing! I've been at St Pierre Groupe for 11 years and most recently led the business through a restructure of the quality and compliance department.

I was never specific which food sector I ended up in, but bakery was always going to be my preference – I am French, after all!

## How has the job of a quality and compliance specialist changed during your career?

It has become more global. The world has opened up in the past 20 years, with improvements in technology and communication. Globalisation has meant that essential communication systems can now stop food safety issues spreading like wildfire in the way they might have done 25 years ago.

In my career, I'd say there have been two key 'moments' that have shaped the future of food and drink safety. The first came in January 2011 when President Obama signed The

Food Safety Modernization Act (FSMA). That bill really shifted the focus from response to prevention, ensuring the US food supply chain had accountability at each juncture. Rather than reacting to contamination after the fact, the impetus was in preventing it in the first place. Of course, Europe was already 'ahead' in terms of food standards, but the US 'catching up' gave us a distinct advantage in the market over there. That's still true to this day to a certain extent.

The second key 'moment' was the 2013 horse meat scandal in Europe. That really was a game changer in Europe in terms of traceability requirements. It brought the importance of food safety into the spotlight in a way that perhaps hadn't been considered previously.

## What advice do you have for people entering the field?

Be curious and listen; it's so important to look outside your own category. Read and research as much as you can – be a sponge for knowledge – because learnings and experience are transferable, and you never know when those reference points will come in useful in your line of work.

Think forward; cross-industry reviews look not just at issues but also resolutions. Food sectors are more closely linked than they may appear; look ahead and make the most of industry resources.

## Why is QA growing more prevalent?

There are two key reasons, but both stem from the fact that the world feels smaller and moves faster.

Travel is so accessible now, which means in the past 20 years, people have learnt what 'authenticity' is. They look for quality products that replicate their experiences around the world and they are a more discerning audience as a result. They want the same mille-feuille they once tasted on holiday in Paris, all year round, wherever they are in the world, so we need systems in place to deliver the same consistent quality every time.



St Pierre tuna steak burgers



The options out there are endless now too, so consumers can afford to be fickle. Having a brand that delivers quality, authentic and safe products consistently is vital to build customer loyalty. That's why the quality and compliance team at St Pierre Groupe has grown so quickly in the past 12 months – our business is about brand-building and consistent superior quality is central to that.

Globalisation also means that the market in which we operate is so much bigger. Food is an international business and that means there's a bigger job to be done in quality assurance. Our job now is about detecting and preventing issues before they become an international concern, cause a product recall or worse, harm to others.

#### Are the types of projects you're working on changing over time?

Yes, absolutely they are. Despite the pandemic, our industry has not slowed down. We've learnt to be more agile and adapt to changing circumstances. Covid-19 has made it incredibly difficult to plan – we have had to find new ways to find and share information and insights. I am so proud of the St Pierre Q&C team as we've adapted quickly to every new announcement or requirement thrown at us by the government and/or our customers. The past two years have highlighted the need for resilience in our line of work.

Obviously, I've mentioned globalisation a lot already, but this has also changed the type of projects we work on – particularly at St Pierre where our international growth is rapid and ever-expanding. We are constantly evolving to meet consumer needs in new markets and that changes the type of work we do, too.

#### Are there any recent projects/wins you're particularly proud of?

In the past 12 months we have increased our in-house quality & compliance resources and restricted the entire team. In doing so, we developed a series of new policies to form the product quality and safety culture at St Pierre Groupe. It's a natural evolution for our business, because our success lies in building trusted brands and we can't do that without a clear plan for Q&C. It has been so rewarding to see everyone getting involved and becoming proud to work at St Pierre Groupe. The implementation of new policies highlights the fact that we are all accountable for the quality and safety of our products and therefore can all play a part. We have always been strong in quality and safety, but this more formal approach to my team's role in the business means that quality and compliance is at the centre of our company culture. That's so important for us; it ensures that everyone in the

business does the right thing – even when no one is watching – because that is the only way to protect and be true ambassadors for our brands.

#### What is the best thing about working at St Pierre Groupe?


I bet everyone says the 'people' but, in our case, it really is true. The people and the products are our most fantastic assets. St Pierre Groupe is a 'people' business, it's in our DNA. We are all passionate about what we do and because senior management listen and encourage us, St Pierre Groupe is genuinely a fun place to work. Everyone is motivated and has the opportunity to be creative. We are trusted and able to try new things, so we achieve amazing results together. It's an upward spiral – though it sometimes looks like an orange tornado!

#### What are the most common issues around quality and compliance that you encounter?

In our line of work, it tends to be issues around contaminated raw materials – mostly chemicals or allergens. HorizonScan from FERA (Food and Environment Research Agency) is a brilliant tool and keeps us up to date with emerging global food integrity issues, allowing us to plan and ensure consumer safety and brand protection.

#### What's the strangest thing that ever happened to you in this job?

A few years ago, I was visiting a French site, when I accidentally left my passport in a rental car. Unaware, I returned the keys and jumped on a train back to the airport. Once at the airport – 200km later – I realised that I had no passport.

Despite this, I managed to blag my way back to the UK. Strolling casually through customs and with a little sweet-talking at Liverpool airport, I re-entered the UK without any form of official ID. Ever since, I've wondered if perhaps I'm wasted in Q&C... I should have sent my CV to MI6! 



St Pierre chicken rolls

# ProSweets confirms urge for flexibility



The trade returned to the aisles of Prosweets and ISM



After a two-year break, ProSweets, one of the world's leading trade fairs for sweets and snacks, was back in Cologne, Germany, staged parallel to ISM. Together both trade fairs cover the entire value chain in the production of sweets and snacks, a unique constellation worldwide.

More than 1,000 exhibiting companies for ISM and 213 exhibitors for ProSweets. As expected, several important players were missing and the attendance was lower than the previous editions but today more than ever, the world belongs to those who dare and...were on stage. Dominique Huret at Cape Decision, Belgium reports

Chocolate products require technical precision and the ideal packaging material



Hardly any other industry introduces so many innovations onto the market as sweets and snacks. Manufacturers have to arouse buyers' interest with new recipes, flavours, ingredients and packaging. Pandemic has changed some consumers' habits and desires. To name a few: more online purchases meaning less impulse ones, search for snacks allowing sharing, socialising, amplified experiences, wish to consume local power food and a clear request for more sustainable eco-friendly product packaging. Equipment makers have work to do to keep up!

## Packaging chocolate in a sustainable way – not a piece of cake

“Coming up with the optimal packaging for sensitive chocolate products requires an effective combination of technical precision and the ideal packaging material. Today most snack bars are packaged using composite materials, eg a base of plastic or paper in combination with an aluminium layer.

“These products can be easily packaged by fold wrapping and do not require any additional securing by sealing or glue. However, packaging materials made of composite materials are not recyclable





Manufacturers have to arouse buyers' interests with a variety of ideas



Buyers need to meet requests for more sustainable eco-friendly product packaging

and are therefore not sustainable in view of market developments,” explains Markus Rustler CEO of Dresden-based Theegarten-Pactec.

But the switch to recyclable mono-materials for sweets and chocolate individual packaging processes bears many challenges. An important one is that paper and mono-material polymers (eg PP, PET) materials have poor dead-fold properties, ie, the packaging must be closed and fixed after folding by sealing or with the aid of glue so that it cannot open again. Paper wraps, especially the one for chocolate products, face other issues linked amongst others to coating and seal ability. For this reason, for years many well-known brand products use a combination of two packaging materials – aluminium paper laminate and plastic packaging. This is first required as a barrier to protect the sensitive chocolate products during the actual packaging process, while the outer wrap uses contact sealing technology. The chocolate could otherwise be damaged by the heat that is generated or by the sealing tools used. As an alternative to this process, packaging has then to be glued with hot melt.

“But to be in line with the times and the shift to paper-based packaging, Theegarten-Pactec

packaging specialists have developed a “suction supported sealing” technology. With a sealing station located directly after the wrapping or packaging station. Negative pressure causes the package to be sucked onto the sealing stamp. In this way, there is no direct contact between the packaging and the product during the sealing process. The sealing seam only comes into contact with the product again after it has sufficiently cooled,” explains Rustler.

### The packaging equipment's future will be modular

Theegarden also unveiled the CHS, its modular high-performance packaging machine for chocolate products featuring the complex “envelope fold” packaging type. Small chocolate pralines are packed effectively at a rate of 800 products per minute. But the CHS is particularly flexible when it comes to the nine types of wrapping style it can handle: double twist, protected twist, top twist, side twist, foil wrap, bottom fold, side fold, >>



Modular high-performance packaging machines pack at high rates





Sacmi Packaging and Chocolate has recently unveiled a multi-style wrapping machine

Machines can be adapted to wrap irregularly shaped products



Vienna fruit fold and now envelope fold as well. The machine allows the wrapping style and format to be switched in just four hours, by one person, with extended length and width.

Sacmi Packaging and Chocolate unveiled for the first time at a trade fair its HY7, a multi-style wrapping machine.

"The system under the arle & Montanari brands offers an output of 700 pralines per minute and master formats' change easily. The individual servo-driven parts of the folding unit can be adapted to praline shape and wrap very delicate or irregularly shaped products.



Hibbi The Hippo chocolate bars

Also essential for our customer is their need to wrap with the latest generation of environmentally friendly films," explains Marco Baldassari, sales manager wrapping from Sacmi.

Ulma, another expert in packaging technologies, is confirming the flexible trends. One of its most advanced developments is dedicated to package nougat. With a variety of flavours and ingredients nougat is nowadays often proposed in a flowpack.

"Ulma packaging process consists of a flow pack machine that prepares the packaging. Unlike traditional flow pack packaging which is completely sealed using a lengthwise seal or two crosswise seals, our equipment leaves the



Flow pack machines are highly versatile offering speed and simplicity

packaging machine with one end open, so that it can subsequently undergo a vacuum packing process, hence prolonging the product's shelf life. The flow pack vacuum packing solution is highly versatile and suitable for different-sized products. The speed and simplicity of format changes in this type of machine is another benefit. Then a flow pack machine with an upper reel allows the product to be packaged without any need for primary packaging. This results in less film needed," says Bjorn Willems, sales Ulma. [\[21\]](#)




### Packaging words of wisdom – Markus Rustler CEO, Theegarden-Pactec

Newly appointed president of Interpack comments: "The pandemic has shown that packaging is not only aesthetic and sales booster, it protects the product and guarantees hygienic conditions. However the necessity of packaging is no reason not to work on saving it. Our equipment and our industry as a whole has to work on processing ever thinner materials and progress in mono-materials easier to recycle. My work at Interpack is not limited to a one-week trade fair in Dusseldorf every three years. In between, there are lots of work in forums discussing and building the future of packaging. Being involved in shaping this future in close contact with many packaging companies is a large part of my motivation to take on the role of president."

# The Suppliers' Directory

A definitive guide to the suppliers of equipment, ingredients and packaging solutions for the food and drink industry. To advertise in the directory, please contact Rhea Sethi on +44 (0) 1474 532202 [Rhea@bellpublishing.com](mailto:Rhea@bellpublishing.com)

## Adhesive Application



**ro**  
**green**  
**GLUING**

YOUR ADHESIVE APPLICATION SPECIALIST

[robatechGT.com](mailto:robatechGT.com)  
+44 1268 490 035

GLUING SOLUTIONS ROBATECH

## Contact Drying

Leading British provider of toll spray drying and powder blending services to the food industry



**Express Contract Drying Ltd**  
T: 00 44 1495 303363 M: 00 44 7584 089463  
E: [pat@expresscontractdrying.com](mailto:pat@expresscontractdrying.com)  
<https://expresscontractdrying.com>

## Dietary Requirements

**Plant extracts manufacturers**



**WATER SOLUBLE HERBAL EXTRACTS**

Adaptogens | Antioxidants | Bioactives  
Centella | Garlic | Green Tea | Ginseng  
Gymnema | Licorice | Maca | Moringa  
Olive | Phytochemicals | Resveratrol | Shilajit  
Tartaric Acid | Taurine | Tocopherol | Vanillin  
Vitamin C | Zinc | Zingiber

**SABINSA EUROPE GmbH**  
P: +49 6103 2701111  
E: [info.europe@sabinsa.com](mailto:info.europe@sabinsa.com)  
W: [www.sabinsa-europe.com](http://www.sabinsa-europe.com)

## Filling Machines

**Filling Solutions (FS+FFS)**



[www.imadairyfood.com](http://www.imadairyfood.com)  
**IMA Dairy & Food UK Ltd.**  
Tel: +44 740 884 0602  
[alex.carter@ima.it](mailto:alex.carter@ima.it)

**IMA** DAIRY & FOOD  
UK & IRELAND  
Filling & Packaging Solutions

**Manufacturers of depositors & filling machines for the food production industry**



**riggs autopack**

Tel: 01282 440040  
[info@riggsautopack.co.uk](mailto:info@riggsautopack.co.uk)  
[www.riggsautopack.co.uk](http://www.riggsautopack.co.uk)

## Filters



**Hygienic stainless steel systems, fabrications, filters and fittings**

**Axiom Process Ltd**  
Hendy Industrial Estate,  
Hendy, Swansea SA4 0XP  
Tel: +44 (0) 1792 883 882  
Fax: +44 (0) 1792 886 041  
Email: [info@axiumprocess.com](mailto:info@axiumprocess.com)  
Web: [www.axiumprocess.com](http://www.axiumprocess.com)

## Flavours

**Create unique, sour taste experiences**



Discover the advantages of PURAC® Powder at [corbion.com/acid-sanding](http://corbion.com/acid-sanding)

- Instant sourness
- Maintain stability
- Low-acid migration

**Corbion**  
Keep creating

**Stringer Flavour**



Manufacturing **Natural Flavours**

**FLEXIBLE ORDER QUANTITIES**

[www.stringer-flavour.com](http://www.stringer-flavour.com)  
Tel: 01442 822621



**CURT GEORGI**  
FLAVOURS  
Best taste since 1875

**Natural and nature-identical flavours for confectionery, bakery, dairy, coffee and tea.**

Curt Georgi GmbH & Co. KG  
Otto-Lilienthal-Str. 35-37 71034 Boeblingen  
Tel +49 (0) 7031 640101 Fax +49 (0) 7031 640120  
[www.curtgeorgi.de](http://www.curtgeorgi.de) [curtgeorgi@curtgeorgi.de](mailto:curtgeorgi@curtgeorgi.de)

To advertise in the Suppliers' Guide  
please contact Rhea Sethi  
+44 (0) 1474 532202



**Foodie FLAVOURS**  
NATURAL FLAVOURING

**HIGH STRENGTH NATURAL FLAVOURING**  
For the food professional

Extensive range of natural flavourings and extracts for food & drink applications. Low minimum orders. Made in the UK.

[foodieflavours.com](http://foodieflavours.com)  
Call: 0333 222 5968

**symrise**

We offer inspiring taste and nutrition solutions for food and beverages

**Symrise AG**  
Mühlenfeldstraße 1  
37603 Holzminden, Germany  
Tel: +49 5531 90 0  
Fax: +49 5531 90 1649  
[info@symrise.com](mailto:info@symrise.com)  
[www.symrise.com](http://www.symrise.com)

To advertise in the Suppliers' Directory  
please contact  
Rhea Sethi  
+44 (0) 1474 532202

## Food Safety



**fera**

A centre of science excellence, applying original thinking to improve global food security & sustainability. Protecting you, what you eat and the world in which we live for future generations.

W: [www.fera.co.uk](http://www.fera.co.uk)  
E: [info@fera.co.uk](mailto:info@fera.co.uk)  
T: +44 (0) 300 100 0323



To advertise, contact Rhea Sethi +44 (0) 1474 532202 [Rhea@bellpublishing.com](mailto:Rhea@bellpublishing.com)

Fruit Juice Concentrates

EXPERT BLENDERS  
& PURVEYORS  
OF QUALITY  
JUICES & SPICES



**GERALD  
MCDONALD  
& CO LTD**

SINCE 1917

[www.geraldmcdonald.com](http://www.geraldmcdonald.com)  
+44(0)1268 244900

Hygiene

**hillbrush**

FOR A QUALITY CLEAN  
CHOOSE HILLBRUSH

THE MOST COMPREHENSIVE  
SET OF BRUSHES AND  
CLEANING EQUIPMENT  
FOR FOOD PRODUCTION  
ENVIRONMENTS

[hillbrush.com/uk/hygiene](http://hillbrush.com/uk/hygiene)

Ingredients

Leading British manufacturer  
of spray dried food ingredients  
Vinegar Powders, Juice Powders, Vegan Cheese  
Powders, Fat/Lipid Powders, Cheese Powders,  
Powders of Named Provenance



Express Contract Drying Ltd  
T: 00 44 1495 303363 M: 00 44 7584 088463  
E: [pat@expresscontractdrying.com](mailto:pat@expresscontractdrying.com)  
<https://ecdingredients.com>

**kalsec**  
EUROPE LTD  
7 Merlin Park, Fred Dannatt Road  
Mildenhall, Suffolk, IP28 7RD  
United Kingdom  
+44(0)1638 715 011 T  
+44(0)1638 715 031 F  
[www.kalsec.com](http://www.kalsec.com)

Producers of Spice & Herb Extracts,  
Capsicum Extracts, Natural Colours,  
Garlic & Onion Extracts, Oxidation Control  
Products & Customised Spice Blends.

**Muntions  
Ingredients**

Muntions Ingredients offers an  
extensive range of malted  
ingredients – from flours to extracts,  
spraymalts to kibbled and flaked  
grains, makes malt the perfect,  
versatile ingredient for adding  
natural flavour, texture and  
colour to your foods.

[www.muntions.com](http://www.muntions.com)  
Tel: 01449 618300  
[Office@muntions.com](mailto:Office@muntions.com)

Ingredients

**MACKLE  
APPLE  
CIDER  
VINEGAR**

Bulk supplies for Food Manufacturers

BRITISH MADE APPLE CIDER  
VINEGAR USING BRITISH APPLES  
No sulphur or additives used with  
acidity levels to suit your requirements

Brewed in our own BRC  
approved factory  
PACKED IN 25 AND 1000 LITRE  
CONTAINERS or Full Road Tankers  
Buy Direct from manufacturer  
Delivery anywhere in the UK  
Tel 02887 784345 OR EMAIL  
[Anthony.Conroy@mackleapple.com](mailto:Anthony.Conroy@mackleapple.com)

Labelling &  
Labelling Machines

**Atwell**  
self-adhesive Labellers

New Contract Labelling Service

Manufacturers and  
suppliers of labels  
and labelling  
equipment



Tel: +44 1444 239 970  
[www.labeller.co.uk](http://www.labeller.co.uk)

Membrane Solutions

**David Kellett  
& Partners Ltd**

Maple Court Wormbridge House  
Wormbridge Hereford HR2 9DH

Tel: 01981 570611 Fax: 01981 570599  
Email: [sales@davidkellett.co.uk](mailto:sales@davidkellett.co.uk)  
Web: [www.davidkellett.co.uk](http://www.davidkellett.co.uk)



REVERSE OSMOSIS,  
ULTRA-OSMOSIS,  
ULTRAFILTRATION &  
MICROFILTRATION  
SYSTEMS AND  
MEMBRANES

Motion Control

Intelligent Motors  
with  
Ethernet, CANopen,  
PROFIBUS  
or EtherNet/IP



**Reliance**  
Precision Mechatronics  
Tel: +44 (0) 1484 601060  
[www.rpmechatronics.co.uk](http://www.rpmechatronics.co.uk)

Multihead Weighers

**ISHIDA**

Ishida Europe Limited  
11, Kettles Wood Drive  
Woodgate Business Park  
Birmingham B32 3DB,  
UK  
T: +44 121 607 7836  
F: +44 121 607 7740  
[www.ishidaeurope.com](http://www.ishidaeurope.com)  
[info@ishidaeurope.com](mailto:info@ishidaeurope.com)

Natural Colours & Flavours

ADM WILD Europe  
GmbH & Co. KG  
Rudolf-Wild-Str. 107-115  
69214 Eppelheim / Germany

Learn more at  
[wildflavors.com](http://wildflavors.com)



[www.kanegrade.com](http://www.kanegrade.com)  
Tel: +44 (0) 1438 742242  
Email: [info@kanegrade.com](mailto:info@kanegrade.com)

To advertise  
in the Suppliers'  
Directory  
please contact  
Rhea Sethi  
+44 (0) 1474  
532202



To advertise, contact Rhea Sethi +44 (0) 1474 532202 Rhea@bellpublishing.com

### Packaging Machinery

**iwis**  
antriebsysteme  
wir bewegen die welt



**iwis** - Specialist Industrial Chain Applications  
Product range

- Simplex & Duplex Spike Chains for thermoform equipment.
- Simplex & Duplex Grip chains for film and tray sealing equipment.
- Extended pin chains for packaging and carton erecting machinery.
- Lubrication free chains (Megaflex) for high speed applications giving additional service life.

For more information, contact us: [www.iwisuk.com](http://www.iwisuk.com)  
iwis drive systems Ltd. / Unit 8c Bloomfield Park  
/ Bloomfield Road, Tipton / West Midlands, DY4 9AP  
Tel: +44 121 5213600 / Fax: +44 121 5200822 / salesuk@iwis.com

### Power Transmission

**iwis**  
antriebsysteme  
wir bewegen die welt



Our goal is perfection –  
no more and no less

**100** Striding Ahead in a Journey of Excellence  
into the first 100 years [www.iwisuk.com](http://www.iwisuk.com)

iwis drive systems Ltd. / Unit 8c Bloomfield Park / Bloomfield Road,  
Tipton / West Midlands, DY4 9AP  
Tel: +44 121 5213600 E-mail: salesuk@iwis.com

### Reusable Transport Packaging

**REUSABLE.  
RETURNABLE.  
PROFITABLE.**



information@schoellerallibert.com  
[www.schoellerallibert.com](http://www.schoellerallibert.com)

**Schoeller Allibert**  
Innovating your logistics for a better world.

### Shrink Wrapping Machinery

**rotronic**  
MEASUREMENT SOLUTIONS  
A PST BRAND

**ROTRONIC manufactures a wide range of precision**  
Temperature, Humidity, Water Activity and CO2 instruments for monitoring and control.

Continuous data is available remotely with alarms - RMS.

Contact us now to discuss your application.

**Rotronic Instruments (UK) Ltd.**  
E: [instruments@rotronic.co.uk](mailto:instruments@rotronic.co.uk)  
W: [www.rotronic.co.uk](http://www.rotronic.co.uk)

**T: 01293 571000**

### Training

**Technical Training Solutions**

Providing Practical Engineering Skills For The Food Industry



Operator Training  
Electrical Maintenance  
Mechanical Maintenance  
Instrumentation

**City & Guilds**  
Approved Centre

[technicaltrainingsolutions.co.uk](http://technicaltrainingsolutions.co.uk)  
tel. 01634 731470

To advertise  
in the Suppliers'  
Directory  
please contact  
Rhea Sethi  
+44 (0) 1474  
532202

### Valves & Steam Traps

**ARI ARMATUREN**

**Control - Isolation - Safety - Steam trapping**  
The equipment provider for users of steam, thermal oil & hot water

**Valves  
Steam traps  
Engineered systems**



ARI-Armaturen UK Ltd  
Tel: 01684 275752  
Email: [inquiries@uk.ari-armaturen.com](mailto:inquiries@uk.ari-armaturen.com)  
Web: [www.ari-armaturen.com](http://www.ari-armaturen.com)

### Viscosity & Texture Analysis

**BROOKFIELD  
AMETEK**

SUPPLIERS OF VISCOMETERS,  
FOOD TEXTURE ANALYSERS  
& THE POWDER FLOW TESTER.

SAMPLE TESTING  
& CONSULTANCY

Call or visit on-line  
for product or  
instrument service  
and calibration  
information.

Tel: 01279 451774  
[www.brookfield.co.uk](http://www.brookfield.co.uk)  
[www.textureanalysis.com](http://www.textureanalysis.com)



### Water Quality Monitoring

**Pollution & Process Monitoring**

Manufacture & supply of  
continuous water quality  
instrumentation

Product Loss  
Effluent Quality  
Plant Load  
Spill Detection

pH, Conductivity, DO  
Temperature, TOC, Oil  
Turbidity, Ammonia

[www.pollution-ppm.co.uk](http://www.pollution-ppm.co.uk)  
Tel: +44 (0)1732 882044  
[s.tuck@pollution-ppm.co.uk](mailto:s.tuck@pollution-ppm.co.uk)

### Weighing

**APPLIED WEIGHING**

**Weighing Solutions for the Food & Drink Industry**  
Backed up by a Nationwide Service Organisation

**APPLIED WEIGHING INTERNATIONAL LTD**  
Tel: (0118) 9461900 Fax: (0118) 9461862  
Email: [sales@appliedweighing.co.uk](mailto:sales@appliedweighing.co.uk)  
Web site: [www.appliedweighing.co.uk](http://www.appliedweighing.co.uk)



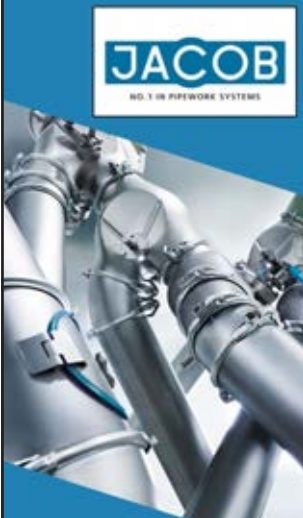
### X-Ray Inspection System

**ISHIDA**

Ishida Europe Limited  
11, Kettles Wood Drive  
Woodgate Business Park  
Birmingham B32 3DB,  
UK  
T: +44 121 607 7836  
F: +44 121 607 7740  
[www.ishidaeurope.com](http://www.ishidaeurope.com)  
[info@ishidaeurope.com](mailto:info@ishidaeurope.com)



**JACOB**  
NO. 1 IN PIPEWORK SYSTEMS



[jacob-group.com/uk](http://jacob-group.com/uk)  
[sales@jacob-uk.com](mailto:sales@jacob-uk.com)  
Tel: 01694 722841

# Sixty seconds with ...

## ...David MacDonald, owner and director of Cullen Eco-friendly Packaging

David MacDonald joined Cullen Eco-friendly Packaging as director in 2009. Over the years, he has overseen the business's diversification into corrugated and moulded pulp products and packaging for a range of sectors, including food and drink.

### Describe yourself in three words.

Ambitious, humble, and dedicated.

### What was your earliest ambition?

As a young teenager I always wanted to be able to afford to take my Mum on a first class trip to create special memories, one which I'm pleased to say I've achieved.

### Who has inspired you in your career?

My Dad, Ronnie. He has engraved hard work and dedication into me and that has always kept my feet on the ground.

### What's your biggest professional achievement?

My biggest professional achievement I believe has still to come. Presently, I'm incredibly proud to be leading a team which to date has produced more than 1 billion eco-friendly products which we export to 34 countries worldwide. This is our contribution to tackling the global issue of plastic pollution and one which we're committed to.

### What drives you on?

Ever evolving opportunities for my team at Cullen to play their part in reducing



the world's reliance on single-use plastic packaging. We have goals to expand our product offerings, employ more people and create products for packaging which aren't harmful to the environment.

### What does a typical day look like?

They're never really the same but one thing which remains a constant is that I walk a few miles to and from work which ensures I have a calm, clear mind at the start and end of the day. At our production facility in Glasgow my day is full of strategy sessions, buying decisions, product development and ensuring the smooth delivery of tens of millions of products for our global customer base.

### What is your pet hate?

There appears to be a decline in upholding the values of community, care and consideration for other people. In a word - selfishness.

### If you weren't in your current position, what else might you be doing?

I'm an entrepreneur and have many interests in music, sport, and sustainability, and not short of ideas as I like to be stimulated.

### Give us a positive prediction for the packaging industry over the next 12 months.

More stability across the marketplace post Covid and a major push towards sustainability and a concerted effort to replace single use plastic packaging with biodegradable solutions.

### How do you believe Covid-19 has impacted the industry?

The world has been turned upside down and everything from power, raw materials, logistics has been impacted, not

to mention the human impact and of course the environmental cost. It seems the global environmental crisis has been made worse, however I'm hopeful that post COP26 and as we emerge from the pandemic that the focus returns to tackling single-use plastic packaging.

### Have you got any hidden talents?

If I told you, they wouldn't be hidden anymore and they should probably remain hidden!


### Do you cook, if so what's your signature dish?

Yes, I find cooking relaxing and my signature dish would be coconut cauliflower curry. Healthy, hearty and light at the same time, a flavoursome family recipe passed onto me by The Doctor's Kitchen.

### What's your tippie of choice?

I don't drink often but when I do, a good glass of red.

### How do you relax?

I enjoy the gym, walking to work is like meditation. I'm into mindfulness and I also enjoy listening to podcasts. 





WORLD

Brussels

# CONFECTIONERY CONFERENCE

chocolate, sweets, snacks & bakery

2022

Bringing together  
sweets, snacks and bakery  
markets globally

Brussels, Belgium  
9 September 2022

Organised by

**CONFECTIONERY**  
PRODUCTION  
chocolate, sweets, snacks & bakery



[www.confectioneryconference.com](http://www.confectioneryconference.com)



CANTECH INTERNATIONAL

# **The Grand Tour 2022**

The Global Technical Conference & Exhibition

Warsaw, Poland

The **global technical  
conference and exhibition**  
for can makers, fillers  
and their suppliers

**6-8 June 2022**  
**Warsaw, Poland**

[www.cantechthegrandtour.com](http://www.cantechthegrandtour.com)



Organised by

**CanTech**

INTERNATIONAL